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Aladra Septama David H. Keller, M.D. Stanton A. Coblentz

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This issue depicts a scene from the story entitled, "Dragons of Space," by Aladra Septama, showing the malignant intelligences of space taking, for their own, an air vessel of the Earth with its passengers, bound across the continent.

April 20, 1930

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Scientific Responsibility

By *Victor A. Endersby*

WHEN the scientist is taxed with the disastrous results of one or more applications of his discoveries, such as were so prominent in the World War, it is rather customary for him to protest that his duty and responsibility lie within the limits of the act of discovery; that the use or misuse of his products are the responsibility of the public.

On the other hand, the whole tendency of the psychological sciences and their experiments is to lower the esteem in which the mass mind is held. It is now very commonly believed that average human mental growth stops in the early teens; and when one views the clumsy ineptitude with which statesmen and politicians attempt to handle the social problems of civilization, one is tempted to cut several years off the figure for the average. This places the discoverer who knowingly, or without proper and painstaking forethought, makes public a discovery which may easily fall into the wrong hands, or be disastrous in incompetent hands, in the category of one who sells an automatic pistol to a child; except that the results, together with the discrepancy of intellect, are apt to be much more marked. The issue is unavoidable; we have not yet in general seen it, simply because our mental progress has been lopsided and we have not been thinking along that line long enough. The pioneer in the hoped-for-science of ethical responsibility is Prof. Soddy, who refused to take part in research on poison gases.

But there are countless other dubious products and researches of science which are being furthered without visible sign of a sense of responsibility on the part of their sponsors. Automobiles last year killed 31,500 persons in the United States. Considering how far any one of us would go rather than have the responsibility for the death of even one innocent person on our hands, would it not now seem that had proper forethought been had, proper account taken of the limitations of human mentality and physical reaction as compared with mechanical speed and power, some other means of transportation would have been sought for; or automobiles evolved along safer lines, the control of the machines being withheld from the public until such safety had been secured? Yet even with that lesson behind us, automobile manufacturers have been foremost in widening the gap between the machinery and human control thereof, using a constantly increased speed as bait to attract dividends.

We have an even worse situation in the air industry; counting by numbers of machines to numbers of deaths, the plane is between seventy and eighty times as deadly as the automobile; had there been as many planes as automobiles in the United States during 1929, there would have been approximately 2,000,000 fatalities. Yet aviation interests are exerting their power, not primarily to make planes safe—an impossible task in any case, since the human factor is the chief cause of trouble—but to sell more planes; not to increase the rigidity of legislation controlling air traffic and pilot qualifications, but to relax it; not to determine the precise limits of the safe use of planes, but to get rid of all limits and to Fordize the industry as far as possible. And so with many interosculating and interrelated lines of present-day scientific and mechanical development, entered upon without due care to balance benefits against disasters. No one, for instance, has been able to point out any definite way in which air travel will increase the sum of concrete human happiness commensurately with the sacrifice of life which has already ensued, to say nothing of the future. Unpleasant words, of course; but much less unpleasant than the public reaction against science which is sure to follow upon a much more prolonged neglect of its moral responsibility, in its fatalities.

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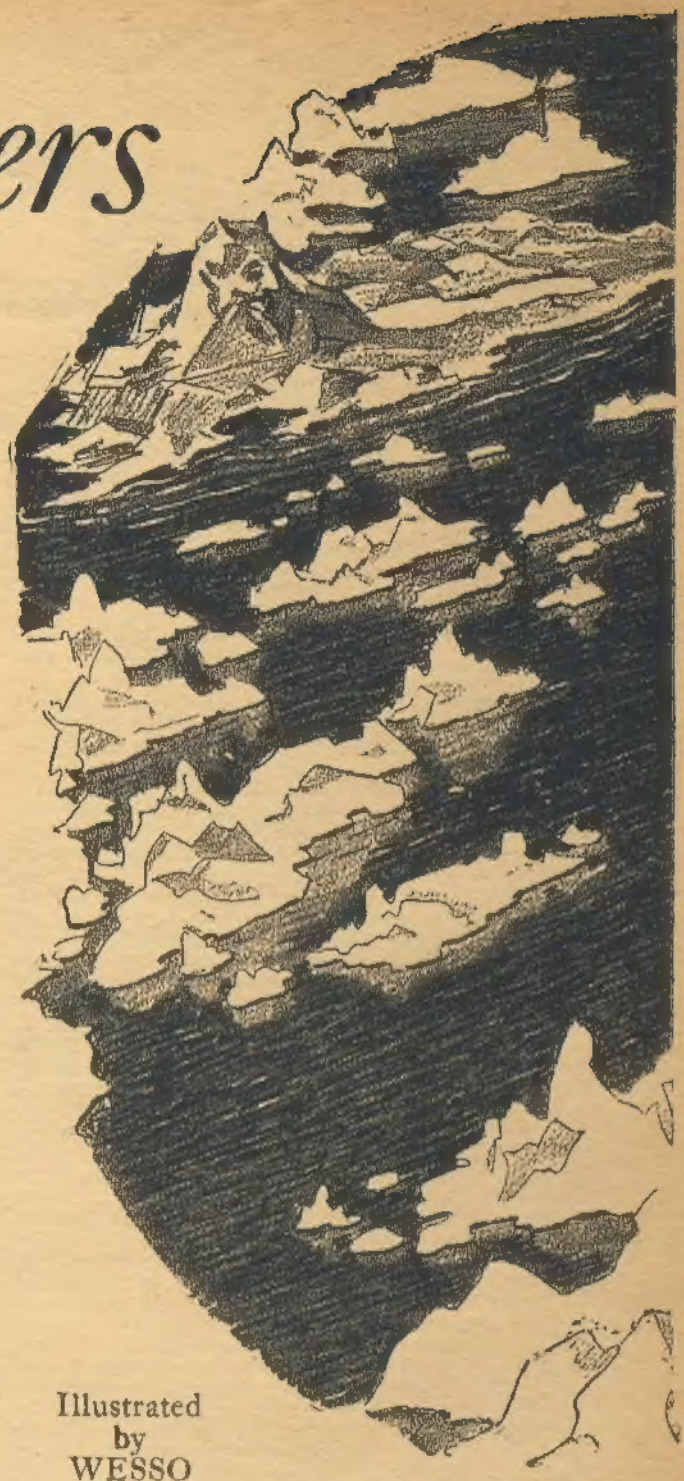
(*See page 277*)

The Next Issue of the Quarterly Will Be on the Newsstands July 20th

Reclaimers of the Ice



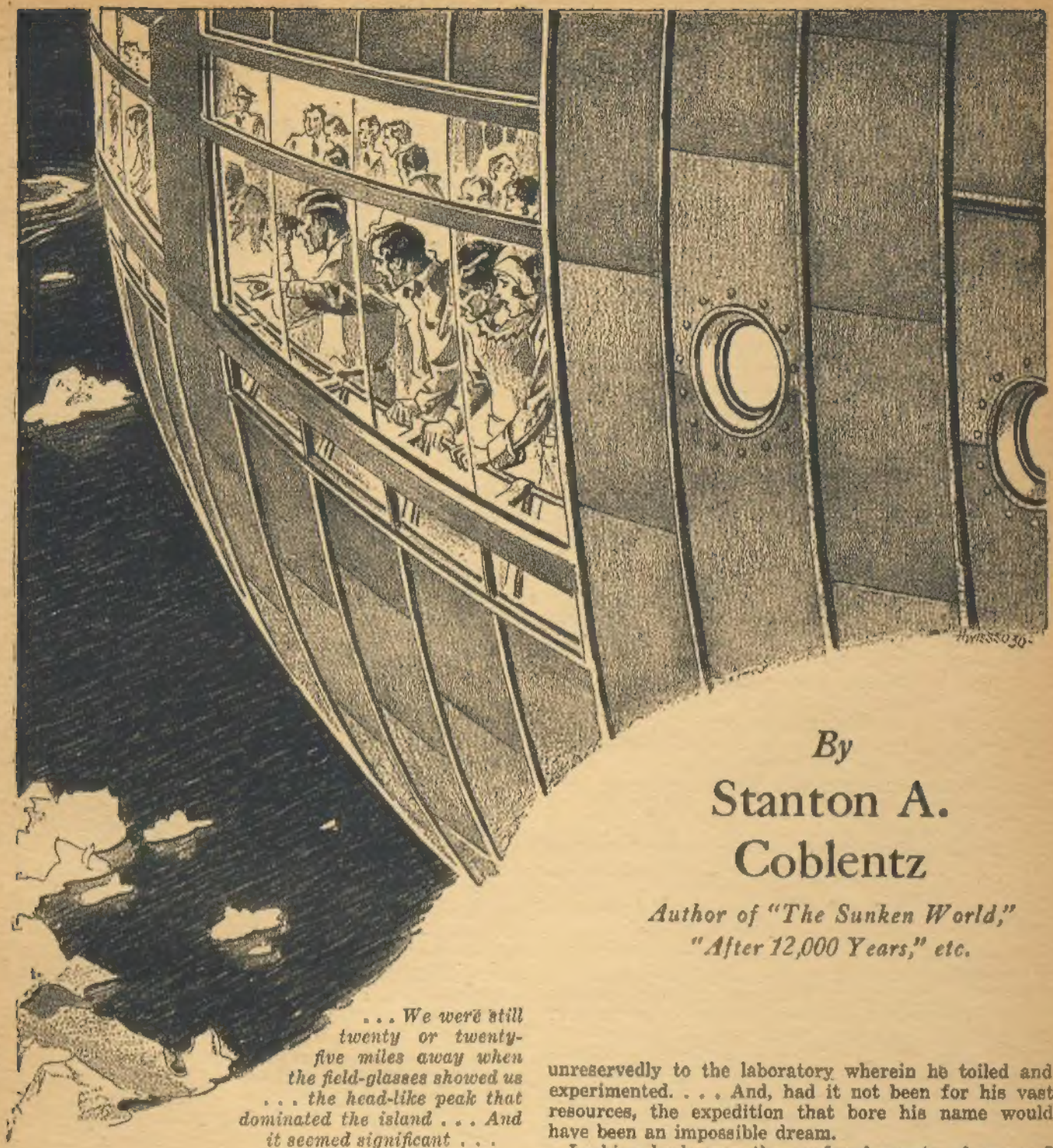
Illustrated by WESSO

THE center of our earth is a seething hot mass—so it is said by many authorities. It stands to reason, therefore, that the farther we penetrate below the surface of the earth, the higher will the temperature become. And if we go deep enough, is it not possible that we might, with the proper appliances, be able to get sufficient heat to make the cold Arctic regions, for instance, comfortably habitable? Certainly the idea seems plausible enough. Our well-known author has given considerable attention to the idea of "reclaiming the ice" and has evolved an absorbing piece of scientific fiction, in which his hero-scientist-explorer carries out some amazing engineering processes with astonishing results. All of his inventions, however, are based on present-day accepted possibilities, and Mr. Coblentz tells his story in his usual vivid manner and cleverly leads it to a startling climax. When the plan laid down by the author is improved sufficiently to become workable—and it is not impossible that it will be improved in the future—it will mean an inestimable gain to the world. Improved aviation will do much to help.

CHAPTER I

Introducing Stephen Rathbone

NOW that I look back upon the harrowing events of the Rathbone Expedition, one man stands out in my mind in gigantic relief against a background of perils and shadows. As one of the sponsors of the scheme and a sharer in all the adventures, I was able to appreciate the heroic spirit that actuated Stephen Rathbone from the beginning; as one of the survivors, now that Rathbone has put his undertaking to the supreme test, I am in a position to view the whole affair with a perspective that, unhappily, not all my colleagues can enjoy. And my conception of the



. . . We were still twenty or twenty-five miles away when the field-glasses showed us . . . the head-like peak that dominated the island . . . And it seemed significant . . .

By

Stanton A. Coblentz

Author of "The Sunken World," "After 12,000 Years," etc.

part played by that daring originator, that consummate scientist and inventor, has not diminished. Rather it has grown with time and distance.

Both by nature and by the endowments of fortune, Rathbone was well qualified for the rôle he was to enact. I shall pass over his gifts as a mechanical genius, which shall become manifest as the story progresses; I shall only state that, unlike the majority whose scientific studies are curtailed by economic necessity, Rathbone was under no compulsion to consider the problems of a livelihood. His father, Samuel Rathbone, of the well known brokerage firm of Rathbone and Street, had accumulated a fortune to be computed by the tens of millions; and Stephen, who, upon his father's death, had shared with his sister a monthly income exceeding most men's earnings for a lifetime, was free to devote himself unreservedly to the laboratory wherein he toiled and experimented. . . . And, had it not been for his vast resources, the expedition that bore his name would have been an impossible dream.

Looking back over the confused events of years, I recall with arresting distinctness the conversation wherein the expedition had its beginning. Rathbone, whom I had known intimately ever since our joint initiation into the same college fraternity, was entertaining a mutual acquaintance, John Norwood, aviator and explorer, who had just returned from a voyage to the frozen North. "It is incredible what a stretch of ice-bitten, useless land there is in the Arctic," I remember him remarking, between puffs at a cigarette, while the three of us sat sprawled comfortably about Rathbone's attractive and yet unpretentious little study. "All in all, there are a total of maybe thirty or thirty-five thousand Eskimos making a living in a region as immense as the whole of Europe. There is a task for some engineer of the future—to convert that frosty wilderness into productive, arable territory."

It comes back to me how queerly Rathbone's earnest

gray eyes took fire at this remark, and what eager interest shone upon his long, contemplative face. "Why a task for the future?" he inquired, half as though to himself; while Norwood, scarcely taking note of his words, went on to observe, "It is merely a matter of time—the world is already encroaching upon the limits of subsistence, and science, in its anxiety to feed the excess population, will have to invade forbidden areas. The Arctic, standing at the threshold of three continents, is our natural field of conquest. We will have to find means for counteracting the Polar climate."

"You mean," asked Rathbone, slowly, as he withdrew his cigar from between his thin lips and solemnly shook out the ashes, "you mean that the climate is all that we will have to counteract?"

"I mean more than that. The climate during two or three months a year is all we will have to counteract. In many places, the soil is good enough, as one can see from the grass and wildflowers that flourish during the brief warm period. If we could raise the average temperature in chosen localities by only a few degrees, we could prolong the summer sufficiently to permit the growth and harvesting of wheat and other hardy crops. The frozen month of winter would hardly matter—after all, North Dakota and Manitoba are not far behind the Arctic in January rigors."

"Then what is needed," decided Rathbone, surprising me by the seriousness with which he took a seemingly impossible suggestion, "is some means of controlling the air currents or somehow regulating the summer temperature."

"I think that is what is needed—and what is coming some day," agreed the explorer. "Only it may not happen for the next five hundred years."

"What can be done five hundred years from now can be done to-day!" stated our host, emphatically. And he lapsed into a brown study, and had no more to say upon the subject. . . .

I must now pass over the period of a year. During that time, although I saw Rathbone repeatedly, the word "Arctic" was hardly ever mentioned between us. Norwood had left on a new adventure to the Northern seas; and, after losing his airplane and fighting with death for ten weeks on an ice-floe, had returned with tales of previously unsighted islands and mysterious coasts well above the Eightieth parallel. But even such startling knowledge scarcely aroused my friend to comment. It seemed as if the subject of Norwood and of Polar exploration was one which he did not wish to broach; always he would turn abruptly to some other topic, or else would sit silently puffing away at his pipe; and the very lack of interest which he professed indicated to me that there was some real interest which he concealed.

Meanwhile, I knew, he was working overtime in his laboratory. Displaying even more than his wonted zeal, he was giving all his days and the better part of many of his nights to experiments of some secret nature. Once or twice a new-made scar on his face or hands, as from exploding chemicals, indicated some incautious lapse; and once or twice huge masses of batteries and of electrical apparatus, which I saw newly delivered to his laboratory, awakened my fruitless curiosity; while on many occasions when I called up, proposing a theatre party or merely an evening's stroll together, he pleaded off with the tantalizing excuse that he was "too busy." Never before had Rathbone seemed to be occupied so exhaustively; and never had he been so secretive, for neither hints nor persuasion were able to extract from him the nature of his activities. He would confine himself to muttering, mysteriously, "You will see in good time. You will see"; and then, with the manner of one who could mention astonishing things if he wished, he would add, "You will thank me for waiting. It would spoil everything to tell you now."

I did not thank him for waiting—but later I came to realize that my friend, not being without a sense of the dramatic, did not desire to blunt the effect of a certain approaching announcement.

I could not, however, have anticipated that anything extraordinary was to come when, one morning, I drew from my letter-box a briefly worded note: "Dear Rodney: Can you be at my place tomorrow evening at eight? Try not to be late. And let me know in case you can't come. Yours ever, Stephen."

On a hundred previous occasions I had received such notes; and it was but natural, that I should feel no quickening of the pulse when, tossing the letter aside and glancing into my date-book, I assured myself that I should be able to visit Rathbone at the specified time.

CHAPTER II

The Unfolding of the Plan

WHEN I arrived at Rathbone's home, I found four persons awaiting me. Each of those four was to play an important part in the events that followed; accordingly, it may be well to describe them at this point.

To begin with, of course, there was Rathbone himself, who with his quick gray eyes, his alert, earnest face ending in the jutting, prominent chin, his decisive manner of speaking and acting, gave the impression of being a man of gigantic energies, as well as something of a potential leader. Next there was John Norwood, six feet in height, broad-shouldered, bearded, with large, strong features, hooked, piratical-looking nose, and a reckless glint in his eyes, and yet with a frank, disingenuous manner that won him innumerable friends. Thirdly, there was Allen Allenham, a man against whom I had long ago conceived one of those prejudices which arise apparently without excuse—for he had never shown any hostility to me, and all that I could find against him was his too-general, over-polished manner, the Bostonian affectation of his speech, and the fact that, being a favored scion of wealth, he had never done any work more serious than to be fitted for a new dress suit. In build he was attractive enough, being slightly above average height, with a glow in his cheeks that testified to frequent exercise on the golf links; but there was also a tendency to flabbiness in his well rounded, unexpressive face, while his thinning, sleekly brushed hair gave promise of a baldness soon to come.

The fourth member of the party tempts me beyond all limits of sober description. Even now memory frames a picture of Ada Rathbone as she was in those days: the tall, athletic-looking girl, with the vivacious blue eyes that flashed and sparkled with laughter, the bobbed light-brown hair that overlooked the wide forehead, the face more beautiful for being innocent of cosmetics, and the gently whimsical manner she had of swaying one to her will by a smile that moved one like music. But how find words to depict this gracious, blooming creature?—how, indeed, ever capture in a phrase the subtle essence of womanhood? Yet there is a particular excuse for my inexpressiveness; I must confess to a strong attachment for the possessor of the charms. True, the attachment was not mutual—mine was not even suspected by the other party; for, though we had been the best of friends, she had shown no evidence of a tender emotion, and I, being well-nigh penniless, had restrained my tongue at thought of the difference in our fortunes . . . . And so it had happened that one fine morning I had received the profoundest shock of my life. Out of all the men who had sought

her hand, and whom, for the most part, she had dismissed with disdainful laughter, her choice had fallen upon Allen Allenham! What way of explaining the whims of woman?—while I was eating out my heart in mute misery, she was affianced to this simpering dandy, and was happily receiving the world's congratulations.

Such were the thoughts that agitated me as I entered Rathbone's study and found Allenham and Ada awaiting my arrival. My greeting to Allenham was just a little constrained and formal, I fear, for my good will toward him had not increased since the announcement of his engagement.

"Well, Rodney, glad you've come!" exclaimed Rathbone, as he took my hand in hearty greeting. "Now that you're here, I guess we're ready to begin."

"Begin what?" I inquired, taking my seat amid the small gathering.

"That's what I've been trying to find out," declared Norwood, while passing around the cigarettes. "Rathbone here has been mighty mysterious. Said there was something important, but wouldn't let on a word till we were all here. It all sounds like a lot of bunkum to me."

"Well, I guess we're ready, whatever it may be," announced Allenham, with a yawn. "But I haven't the ghost of a notion what it's all about."

"Neither have any of us, silly!" chided Ada, giving her fiancé an admonishing slap on the back. "Why, my brother wouldn't tell even me—and he usually tells me everything!"

By this time Rathbone had taken his seat in the center of the group. "Well, if you're ready," he proclaimed, "I'll end the suspense."

Instantly all conversation ceased.

He fumbled contemplatively at his chin, eyed us all with a speculative glitter, then slowly began: "As you have probably surmised, I have called you here on a matter connected with my scientific experiments. During the last year, I have been engaged in the most important researches of my life. If it were no violation of modesty, I might even say that they promise to become among the most important researches of the century. I myself am just a little staggered at the possibilities, for I have succeeded beyond my most daring expectations. I did not wish to speak to any of you until I was thoroughly certain; but, now that I am certain, I want to solicit your aid in an undertaking that may drain the last energies of all who are involved in it—"

"Come! Come on!" interrupted Norwood, impatiently. "Just what are you driving at?"

Meantime Allenham, losing interest in Rathbone's disquisition, had turned to smile at Ada in a manner calculated to twist a dagger into my heart.

"WHAT I am driving at is just this," summarized Rathbone, with a reproving glance at Allenham. "About a year ago I was deeply impressed by some of Norwood's statements regarding the necessity of reclaiming Polar lands. Ever since that time, I have been experimenting to find ways and means of making the reclamation. And now at last I have succeeded."

"The devil you have!" ejaculated Norwood, leaping to his feet like one dealt a blow. "You mean to say—"

"I mean to say I have found a method of making Arctic waste lands habitable," stated Rathbone, calmly. "Sit down, and I'll tell you about it."

Norwood sank into a seat like one who has lost control of his muscles.

And we all stared at Rathbone in speechless attention as he proceeded, "The one problem, as Norwood made me understand and as I have verified from careful reading and investigation, is to find a means of controlling the Arctic temperature. If the ocean waters, or the waters of streams and lakes in any particular locality, could be heated sufficiently, the desired result would automatically follow, since the temperature of the water directly affects that of the air. But no method ever yet invoked by science could accomplish the end. And the amount of the necessary energy would be so prodigious that it could not be procured by any system now in use. Therefore it has occurred to me to obtain energy from a new source. Beneath the feet of us all there exists an untapped store of energy so vast that one millionth part of it would suffice to run all the world's dynamos for hundreds of centuries to come. Why not make use of this unutilized wealth?"

"My God, man!" cried Norwood, leaning forward in tense-fisted excitement. "You don't mean to say you're thinking of tapping the earth's internal heat?"

"That's just what I do mean to say," acknowledged Rathbone.

Norwood flung himself back into his chair, his mouth wide with astonishment. "If this doesn't beat the very devil, Rathbone! I always did think you an impractical dreamer, but I never expected you'd come to this. To bore down for heat into the very bowels of Mother Nature! Why, the thing's impossible!"

"It is not impossible," denied Rathbone, in the same quiet manner as before. "I have demonstrated that it can be done. What is more, it shall be done."

"Yes? How shall it be done?" demanded Norwood, with a skeptical scowl. "Why, to begin with, you'd have to bore down through a thousand miles of rock and iron."

"Not by any means!" corrected Rathbone. "The thickness of the earth's crust is not known, but conservative estimates place it at from thirty to fifty miles. Beneath that is probably a viscid, almost fluid mass, heated to a temperature of thousands of degrees. At the depth of a few miles, however, the heat is undoubtedly so great that, were it not for the prodigious pressure, the solids would all become liquefied."

"And any man going down a quarter that far would be withered to a cinder!" pointed out Norwood. "I have been in deep mines, and know how rapidly the temperature rises as one descends. At half a mile the heat is Hell; at a mile, one feels a longing to throw off all one's clothes and go for a cool summer excursion to the Equator. And that is why no mine much over a mile deep has ever yet been bored."

"Yes, I know all about that," coincided Rathbone. "Figures show us that, while the rate of increase varies according to the constituents of the earth's surface, the average in all parts of the world is about one degree Fahrenheit for every fifty or sixty feet. This means, as you will note, a gain of nearly a hundred degrees for each mile."

"Exactly!" flung back Norwood, triumphantly. "How, in the face of such figures, do you expect to bore down many miles?"

"The figures prove I won't have to bore down many miles!" countered Rathbone. "Even in the Arctic, an excavation of less than three miles should bring us to the boiling point of water."

"So then you're thinking of living at boiling point?" challenged Norwood, with just a hint of sarcasm.

"I have a scheme," continued Rathbone, disregarding the interruption, "for making an enormous bore that will take us down till the temperature reaches at least 212 degrees, Fahrenheit. The excavations will take place by mechanical means exclusively; but in order to make it possible to enter those depths, my plan would provide for heat-resisting asbestos clothing, as well as for pumping in a continuous supply of cooled air. As for power, it will be obtained electrically—"

"I suppose you think there are power-houses scattered all over the Arctic!" sneered Norwood.

"I shall create my own power-house. And it shall be constructed according to a totally new method. I do not propose to go into details now, for you will have the chance to observe later; let me only state that huge dynamos, harnessing the tremendous pressure of the drifting ice-pack, shall produce all the electrical power we require. For I want you to understand that I intend to conquer the Arctic—and to conquer it with weapons never tried before!"

"You have a man's size task ahead!" grunted Norwood, a little less belligerently than before. And I could see that he, like Ada and myself, was beginning to lose all doubts in admiration for the originality and daring of our host.

"My plan," proceeded Rathbone, his fists clenched in an attitude of determination, his sagacious gray eyes kindled to a vivid glitter, "is to pipe vast quantities of water into the depths, allow it to become heated practically to boiling, and then, by means of electrical pumps, to force it back to its starting point, thus raising the temperature of whole rivers, lakes and seas. We cannot, of course, begin on the enormous scale that I eventually anticipate, for I foresee a time when the entire Arctic, dotted with heating stations, will enjoy six temperate months a year. But at present, for the purpose of demonstrating just how feasible the idea is, I propose to organize an expedition to make the experiment in some single limited area."

A silence fell upon us. It was as if something of the power of the inventor's own conviction had communicated itself to us; each person glanced questioningly at his neighbor, but all seemed held just a little by the force of Rathbone's revelations.

"That all sounds just fine to me, Stephen!" at length declared Ada, beaming enthusiastically upon her brother. "I think you've gotten hold of a really big idea!"

"Possibly a little too big ever to be worked out," ventured Norwood, who still seemed bent on pouring cold water on Rathbone's plans.

BUT our host, disregarding the disparaging comment, went on to suggest, "Would you like to see what I have planned? Down in the laboratory there are some models that may interest you."

Abruptly he arose; and all of us, following his example, accompanied him out of the room, down the stairs, and outside to the long tin-roofed building which, half hidden amid the shrubbery to the rear of the Rathbone mansion, had long served my friend as a laboratory.

Switching on the electric lights, he led us through an evil-smelling room littered with test-tubes, beakers, crucibles, and bottles containing various fluids and solids; then on through a compartment crowded with electro-magnets, motors, wires and batteries; then into a larger chamber that struck me at once by its oppressive heat, which reminded me of a hothouse.

But the warmth of the room was its least unusual feature. On every hand it bore the marks of some extraordinary experiment. In an iron container perhaps ten feet square, there glittered a pool of water, into which, in my rash haste, I came near to falling; while at one end, beyond a long glass partition, was a curious-looking apparatus which all of us hurried to examine.

Eight or ten feet in height, it was featured by a long perpendicular shaft and a narrower secondary shaft, reaching from its base down through earth and rock. In the latter, an iron affair, reminding me of an elevator car, dangled from a wire halfway to the bottom; while within the main tube was a tangle of smaller tubes, each of about the thickness of a lead pencil; and several of these extended to its base, then were lost amid a confusion of iron boilers, from which other and similar tubes emerged and found their way to the surface. In the central bore, whose thickness was a little more than that of a broom handle, were a number of balconies and valve-like arrangements; and little excavations, distributed at intervals along its side, bore the shape and impression of rooms, and showed tiny images of men at work within them.

For a moment all of us surveyed this curious model in silence. "What under heaven do you think it is, Rathbone?" at length burst forth Norwood. "It strikes me as a very clever-looking toy."

"It is far from a toy!"

The inventor shot an irritated glance at Norwood, then quietly explained, "I have tried here to represent my plan in a model. The scale in general is about one inch to every 200 feet, although, of course, I have not been able to maintain the proportions exactly. You see there a shaft like that which I intend to excavate; you see also an artificial lake, from which I have actually pumped water into these small tubes."

Here he demonstrated how the smaller pipes connected with the water in the iron container, and how miniature electric pumps were forcing it out of the container and down toward the underground boilers, then back from the boilers and into the lake once more.

"The earth and rock around the boilers has been heated to a temperature of 220 degrees," he explained. "The water, reaching there in an ice-cold condition, is allowed to remain until it approaches boiling point, then is pumped back into the artificial lake. The lake itself, which is taken to represent a body of water six miles square and half a mile deep, may easily control the temperature of a region several times that size. In my tests in this room, for example, I find that, in the course of five hours, I am able by this method alone, to raise the temperature twenty degrees."

"Oh, now I understand why it's so hot here!" groaned Allenham, who had been mopping his brow energetically while giving only a casual attention to Rathbone's explanations.

"I have other materials in that room there," proceeded Rathbone, pointing to a closed door. "Perhaps you'd like to see a model of the apparatus by which I expect to generate electricity from the pressure of the ice-pack."

I should very much have liked to see the contrivance; and so, I believe, would Norwood and Ada; but Allenham was of a different way of thinking.

"No, thank you. Don't trouble yourself," he dissuaded, raising his hand in a restraining gesture. "From what we've seen already, we're quite able to understand."

"You seem to have a remarkable grasp of things," commented Rathbone, drily, as he stared quizzically at Allenham. "Well, those that want to see more can do so later. Let's go back to my study."

Disappointed that our visit to the laboratory had ended so abruptly, I accompanied my friends back to the house.

Allenham, I believe, would now have gladly allowed the conversation to be diverted to the subject of golf or of the forthcoming dances; but the others were not so disposed. "What were you saying, Stephen, about that expedition you were planning?" inquired Ada, as soon as we were once more settled comfortably in the little room upstairs.

Rathbone cleared his throat, sat staring thoughtfully at us all, and confided, "I haven't worked out all the details as yet, but I might state my plan in general.

I will select some section of the North, preferably one far removed from all inhabited areas; and will settle there with a considerable force of men, as well as with all necessary equipment, scientific and otherwise——"

"A very simple matter!" ejaculated Norwood, turning upon his host with a sarcastic smile. "My dear Rathbone, from the way you speak, it's perfectly easy to see that you know nothing at all about the Arctic. You must think there's a regular railroad service to the North Pole. Why, don't you know that traveling even by vessel is as dangerous as the very devil, and impossible in many places. The chief means of transport is by dog-team—and if you go that way, you'll be glad to make fifteen miles a day and be able to carry enough canned pemmican to keep you from starvation."

RATHBONE stared at his critic with a look of condescension, and almost of pity. "Let me remind you again," he insisted, "that I don't intend to proceed by the old methods. The real way to conquer the Arctic is not by dog-team, but by air. Why, come to think of it, you've tried that way yourself."

"Yes, I was that foolish!" muttered Norwood. "Wrecked my plane on a fog-covered iceberg, and was lucky to get away with my life. Never again for mine, thank you!"

"The trouble was that you used the ordinary heavy type of machine," argued Rathbone. "You weren't properly prepared for Arctic conditions. My plan is to go by dirigible. One dirigible, the Norge, under Amundsen and Ellsworth, has already successfully flown across the Pole."

"Yes, and on a later flight, the dirigible Italia, under Nobile, also flew across the Pole—but was wrecked before it could return. Besides, it's not the easiest thing on earth to go to the government and charter a dirigible!" laughed Norwood disdainfully.

"I won't have to charter one!" announced Rathbone. "I'll make one!"

We all glanced at him inquiringly; and, after an impressive silence, he continued, "I'll make one—and make it of a totally new type. For I mean to overcome the defects of the earlier models. Dirigibles hitherto have never been quite satisfactory, for they have been filled with one of two gases: helium, which is exceedingly rare, costly, and difficult to renew; or hydrogen, which is always in danger of being the cause of an explosion. And there appears to be no substitute. But why look for a substitute? For that matter, why use any gas at all? Long ago it occurred to me that a vacuum would be not only lighter but in every way more desirable. Consequently, I have given much time to devising a vacuum type of dirigible, consisting of a light, thin envelope of an aluminum alloy, and more than a hundred compartments from which the air has been pumped by a new electrical-suction process, with which I have been experimenting for years. All that, of course, will be made plain to you later. I have already completed a small model, which drifts about the air like a balloon. A larger machine, over nine hundred feet in length, is now in process of construction."

We could only stare at Rathbone in speechless amazement; now at last we began to realize the sweep and scope of the man's genius.

"But, why go into all the details?" he pursued, after a momentary silence. "The important thing is that I expect to be ready to start some time next summer. Tell me, can I expect your cooperation?"

"You certainly can count on mine!" cried Ada, with a ringing enthusiasm. "Oh, Stephen, I think your idea is marvelous!"

"I'm with you, too!" I volunteered, wishing to appear worthy in Ada's eyes, although I did not know in what way I could assist.

Simultaneously there came the drawl of the bored-looking Allenham. "If you're in need of any capital, you can always call on me."

"Thanks. I don't need any," returned Rathbone, bluntly.

Only Norwood, who alone seemed likely to be of any real aid, had remained silent.

"Well, I'm sorry, Norwood. I'm really sorry you can't give us your support," said Rathbone, with a disappointed nod in the explorer's direction.

But suddenly over Norwood's face there came the broad, ingratiating smile for which he was noted. "Who says I can't give you my support?" he thundered. "I think you're nothing but a babe in deep water, Rathbone, but I'm not going to be the one to desert you. You don't know a thing about the Arctic, and I believe you're going on a wild goose chase. Just the same, I'm getting sort of tired of civilization. You can put me down for a reserved berth on that dirigible."

And as Norwood, grinning like a delighted schoolboy, extended his huge hand and firmly took Rathbone's slender one, I knew that the expedition had gained an invaluable recruit.

CHAPTER III

Alluring Vistas

I SCARCELY know how to describe the ten months' period of preparation. Critical event followed critical event so rapidly as to leave little more than a bewildering blur in my mind; and every few days some important decision or announcement was made. But perhaps the most momentous issue of all was the selection of the site for the experiment.

In this selection, the advice of Norwood played the major part. The explorer, who remained bitingly critical of Rathbone's plans and expectations, was at the same time one of Rathbone's most eager supporters; and in the zest with which he discussed each detail of the preparations, no less than in the vivid pictures he drew of our probable Arctic habitat, his interest was daily apparent. And he it was who offered the all-important suggestion. At first Rathbone had thought vaguely of settling on some spot in Greenland, while I had mentioned Baffin Land, and Ada had favored the Arctic coast of Alaska; but it was Norwood who came forth with the one original recommendation.

"Since you intend to begin with a small area, I should suggest an island," I remember him remarking, one evening when we all sat comfortably about the fire in Rathbone's study. "And, while you're at it, why not be really venturesome? Why not strike out for some unmapped district? No, you misunderstand me"—here he raised his hand to restrain Rathbone, who seemed about to burst into protest—"I am not advising you to put exploring first. But, during one of my expeditions, I sighted an island which, so far as I know, no human being had ever set foot on before. It is in a region generally marked 'unexplored.' The island is moderately large—twenty or thirty miles long, I should judge, and possibly half that wide; and in its center is a glacier, giving upon a partly frozen lake miles in extent. Now I should think the waters of that lake would give you just the chance that your experiment requires."

Rathbone nodded understandingly. "Where is the island?" he asked, his gray eyes lighting up with interest.

"Almost at the top of the world," stated the explorer. "It is—well, let me see—" And he mentioned a point

located somewhere between 175 and 180 degrees West Longitude and between 80 and 82 degrees Northern Latitude—figures which, of course, meant very little to us at the moment.

"Let me show you more definitely," he continued, noting our puzzled expression. "Got a map anywhere handy?"

A moment later we were poring over an atlas, whereon a blank expanse of blue designated the region between the easterly tip of Siberia and northern Spitsbergen. "See, it's about halfway between Wrangel Island and the Pole," he stated, indicating an unmarked point amid the wilderness. And, in answer to our inquiring looks, he explained, "Wrangel Island was the objective of the ill-fated expedition sponsored a few years ago by the explorer Stefansson. Four white men and an Eskimo woman were left there for two years, and in the end the only one found alive was the Eskimo."

This did not sound encouraging; but Norwood, taking no note of the anxious glances we cast at one another, went on to declare, "The island I recommend is in the heart of one of the least known regions on earth. For that reason, Rathbone, it would be a particular triumph for you to succeed there. But I hope you won't be scared away by the name I've given the place.

"What name is that?" inquired Rathbone, with a smile.

"Desolation Isle."

Rathbone's smile only broadened. "Fine!" he approved. "The reclamation of Desolation Isle—there's something to appeal to the imagination. The name couldn't be better. It will help to emphasize our success."

I noticed that Rathbone's eyes beamed as if with sudden determination; and, though he had no more to say just then, I felt convinced that Desolation Isle was to be his goal.

The choice of a destination was of course only one of innumerable matters requiring attention. I had never seen a busier man than Rathbone during those months of preparation. He had to arrange to secure a competent outfit and provisions for a party of forty-five; to provide them all with condensed and varied food for a year; to equip them with the fur clothing necessary for withstanding the Polar climate; to supply oil and gasoline for the dirigible, and medicines for the men, as well as snow-shoes, skis, weapons, ammunition, ice-picks, axes, and various other tools; to obtain scientific apparatus, including barometers, thermometers, field glasses, surgical implements, and—most important of all—the dynamos, batteries, wires, and electric bulbs, heaters, pumps and drills necessary for carrying out the experiment. To these had to be added, of course, a vast quantity of pipes and screws, of boilers and other constructional equipment; while it was also necessary to provide the materials for simple collapsible houses, of a type later to be described.

Long before Rathbone had finished computing the amount and probable weight of all this paraphernalia, it was apparent that it would constitute by far the largest cargo ever sent into the Arctic. And it was likewise apparent that Rathbone's proposed dirigible, capacious though it was to be, would not contain it all. Therefore he resigned himself to an alternative plan. "I'll pack the airship with as much as it can carry," he said, "and put all the other material upon a steamer, which will proceed as far as Nome, and there unload. The dirigible, returning to this point on as many successive trips as necessary, will bring us all our supplies in plenty of time."

"Yes, and do you know just what you are asking?" demanded Norwood, in criticism of the scheme. "The dirigible, even if it keeps to the direct course, will have to cover about twenty-four hundred miles on each round trip between Nome and Desolation Isle. And most of that journey will be across an ice-littered sea, with terrific head-winds to be expected at any time."

Rathbone admitted that there were disadvantages in the plan, but maintained that his dirigible would be able to battle any head-wind that ever blew.

The construction of the air-liner itself, of course, was now one of his chief concerns. Each day he would spend several hours in the great steel works to which he had given the contract, taking care to examine personally every bolt and rivet, every scrap of metal or wood in the whole great mechanism. "A single defective wire or sheet of metal, and our expedition may end on the rocks," he told me, by way of explanation; and I could well understand the necessity for caution. Especially was I impressed one morning when I accompanied him to the steel works and saw the half-finished skeleton of the dirigible, whose long cigar-shaped body, of the size of a great ocean greyhound, loomed like a veritable mountain, while slender ribs and paper-thin partitions indicated where the compartments were to be.

"I do not see how you are to make the thing fly," I commented, observing the amount of metal that was being used.

But Rathbone only laughed, and explained, "It will have to fly. The walls, being, as you know, of a specially prepared aluminum alloy, are both tough and light, and though under a quarter of an inch thick, will withstand the fifteen pounds per square inch of atmospheric pressure as well as the added pressure of head-winds. The inner partitions will be thinner still, and will be of an airproof parchment which I have prepared for this particular purpose; while electric suction pumps will drain virtually every trace of air from each of the one hundred and twenty-two compartments. The machine, when complete and unloaded, will be of about ninety-eight per cent of the average specific gravity of the air."

"This means that, when loaded, it will be much heavier than air!" I objected, with visions of the failure of Rathbone's plans.

"Exactly! And what of it?" he flung back. "Birds are many times heavier than air; and so are airplanes—and yet they fly. The lifting effect generated by the flight more than overcomes the excess weight. Our own machine, however, will be proportionately far lighter than an airplane; yet, if it were not heavier than air, we could not descend without opening some of the compartments—and so ruining the vessel. But, under present arrangements, all we will have to do in order to come down will be to stop the motors."

"And what if the motors stop at the wrong time?" I inquired, picturing an unwelcome descent into the Polar sea.

"That has all been arranged for. The dirigible will have six engines, any three of which would suffice to keep it afloat indefinitely. It is unthinkable that they should all get out of order at once."

I was forced to concede the point, and once more I had to admire the thoroughness with which Rathbone had laid his plans.

NOT the least of my friend's problems, as the months went by, was the selection of the personnel of the expedition. It was necessary to secure men skilled in the Arctic; it was necessary, again, to obtain willing and competent laborers for the work underground; it was necessary, also, to have capable scientific assistants and at least one physician; and, above all, it was essential to find volunteers who were not only willing but

able to endure a year or possibly several years of exile in a region of ice and blizzards. Rathbone, of course, placed advertisements in leading papers, offering wages at a liberal rate, and applicants appeared in sufficient numbers; but the process of elimination was by no means simple. And here again the advice of Norwood was invaluable. "Take only blonds," he recommended. "These are best able to withstand the long winter darkness." And, though he was a large man himself, he added the curious suggestion, "Pick out the small wiry men, if possible. You will find that they eat less, are easier to transport, and make their way about more rapidly, particularly when it comes to crossing thin ice." But his next bit of advice struck me as stranger still: "Arrange to engage one or two Eskimos at Nome, including Eskimo women for repairing the clothing. You will find that they know more about the country than you do, and their ways will prove useful sometimes even when science fails."

"And while you're getting the Eskimos," he appended, "why not hire two or three dog-teams, along with experienced drivers? You never know when you may be reduced to this primitive method of travel."

Rathbone, though he smiled disdainfully at the latter suggestion, none the less did all that Norwood advised. And there was to come a day when, under circumstances that the most dismal-minded of us could not have anticipated, we were to thank the gods for Norwood's foresight.

In due time the aid of two Eskimo women was promised, as well as that of two native drivers with their dog-teams; in due time, also, Rathbone had engaged a surgeon and two well recommended scientific assistants, as well as a pilot and crew for the dirigible and more than twenty-five laborers, both skilled and unskilled. But the final recruits were still to make themselves known; and it was not until within a month of the departure that several noteworthy additions to the passenger list were announced.

One evening when I visited Rathbone in his study, I noticed that a troubled smile, which had haunted his face frequently of late, had grown more pronounced than usual. "Sit down, Rodney," he requested, greeting me in a grave manner and without any of his usual effervescence. And as I took my seat across from him, I observed that there were furrows of sleeplessness beneath his eyes, and that his cheeks, grown newly sallow, were crossed by fresh lines of worry.

"Well, what is it, Steve?" I inquired. "What has made you so downhearted? Not getting cold feet, are you, now that the great adventure looms so near?"

He looked across at me reproachfully. "I think, Rodney, you know me better than to believe that. But I might as well admit that there have been a lot of things troubling me. One of them——"

"Yes, one of them?" I prompted, for he had paused, as though reluctant to proceed.

"Well, one of them," he continued—and in a way to make me believe he was not saying what he had at first intended—"one of them has to do with Ada."

"Ada? I hope nothing's the matter with her."

"No, nothing much, I guess," he returned, wearily. "It's just that I've been fighting things out with her for months—and she seems to be one too many for me. Now I maintain that an expedition like ours is all right so far as men are concerned—but it's no place for a woman, particularly one reared in the heart of comfort and luxury. Ada, however, thinks differently. She wants to come along. More than that, she intends to come along. And I don't know how I can stop her."

"So Ada wants to come?" I gasped, feeling strangely shaken, for such a possibility had never before occurred to me. "What—what does Allenham say about it?"

"Oh, what do I care what Allenham says?" muttered Rathbone, with a scornful frown.

"But I thought—I thought they were to be married this summer?" I faltered.

"So they were. Allenham still wants it that way. But Ada has decided they must wait till their return from Desolation Isle."

"*Their* return?" I hurled back at Rathbone. "Then is *he* going too?"

"Yes, yes, I suppose so," admitted Rathbone, in tones as barren of enthusiasm as though he were announcing his life's failure. "Of course, if he were anything of a man, he'd stop Ada from going. Instead, she induces him to keep her company. He doesn't really want to go. But he's too weak to resist her. He'll be about as much in place as a Polar bear in the South Seas!"

"Maybe you could persuade him not to go?" I suggested.

"Persuade him? No, no one could do that except Ada. She leads him around like a pet monkey."

He arose, and paced over to the window, where he stood peering out with his hands folded solemnly behind him. "I was a fool to take Allenham into my confidence in the first place. But I could hardly help myself, because Ada always trails him about with her. God! You ought to have heard how Norwood laughed when I told him Allenham was going."

Then, swinging about and confronting me with a sudden fierceness of appeal, he continued, "Now if it were only some one like you, Rodney—"

Something in his manner took fire within me. Why, as a matter of fact, should I not accompany my friend? I had not previously realized that Rathbone wanted me; yet the adventure allured me powerfully, and I knew that I would not be missed in the law office wherein I was Junior Partner. Besides, Ada was going!

And it was with the thought of Ada uppermost in my mind that I put my hand on Rathbone's shoulder, and inquired, "Still room for another man in that dirigible, Steve?"

"There always was room for you, Rodney," he said. And, as our hands met in a warm clasp, I knew that I had cemented our friendship at the same time that I had turned my life into strange and perilous channels.

CHAPTER IV

The Voyage of *The Pathfinder*

IT was a never-to-be-forgotten day when Rathbone's dirigible, newly christened *The Pathfinder*, stood waiting at anchor upon a New Jersey field. An enormous silvery white affair, which gleamed and sparkled in the sunlight, she differed in a hundred respects from any airship previously flown. Not the least of her points of variance was that she did not display any dangling "gondola" or other external encumbrance; instead, an enormous opening forward, shaped somewhat like the mouth of a shark, contained accommodations for all the passengers; while similar compartments to the rear, all of them closed so artfully as to be invisible, represented the storage rooms for the freight.

Among the exciting scenes that preceded our departure that July day, not a few come vividly back to mind. I remember the crowd that had assembled, with cheering, and waving of flags, and blaring of horns; I remember how each of our company, bearing a small pack of personal possessions, mounted the gangplank and tumultuously or sadly bade farewell to friends; I recall Ada's jubilant greeting to me, and the exultant look in her eyes, which contrasted so strikingly with

Allenham's cowed, almost frightened expression; I have pictures of how hopefully and yet how regretfully I stepped into the little glass-lined case that was to contain us all, and how I shuddered and trembled with the shuddering and trembling of the ship when the engines were ordered into action and the great propeller blades began to whirl.

At last the critical moment came. At last, with a jerky, horizontal motion, we were starting along the grassy five-hundred-yard runway, our whole enormous bulk supported on half a dozen little wheels like those of bicycles. Then automatically, once we had made a little headway, the wheels folded up beneath us, and lo and behold! we had lost connection with the earth! And, almost before we had had time to gasp and cry out, we were darting ahead with the speed of an express train, and the trees and house-tops were far below!

What surprised me at first was the smoothness and the unapparent speed of our flight. Once the start had been made, there was none of that shaking and lunging which I had heard of as normal in a dirigible. We glided forward with an evenness of motion surpassing that of a liner on a smooth sea; and so little sign was there of the stress and strain of travel that it was hard to believe that the woods and meadows, strewn beneath us in a mottled green, were receding at the rate of more than a hundred miles an hour. "Unlike most dirigibles, we are heavy enough to keep our balance," I overheard Rathbone remarking—and I could easily understand that our very weight, whose hampering effects I had once feared, was one of our chief advantages.

It was not until after half an hour's flight that I could repress my excitement sufficiently to inspect the vessel's equipment. In common with most of my fellow travelers, I was seated on a deck promenade, about twenty feet across, and extending the full hundred feet from beam to beam of the ship. At both ends, this compartment was enclosed with rows of portholes; to the front were doorways leading to the Captain's headquarters, as well as to the fifteen cabins that housed the rest of the party; while to the rear were the dining-room, kitchen, store-rooms, engine-rooms, etc. I was pleased to observe that all the living quarters, while necessarily limited in space, were tastefully furnished and decorated, so that it was not difficult to feel as much at home as though crossing the ocean on a modern liner. What was difficult was to believe that, with these civilized appurtenances, we were bound for one of the wildest regions of the Arctic.

Our intention was to proceed on a non-stop flight across the continent to Seattle from Seattle northward on another non-stop flight to Nome, and from Nome on the final lap to Desolation Isle. All in all, allowing for the two scheduled halts, we were to be scarcely four days upon our way!

And, what was more important, this plan appeared likely to be fulfilled. Our advance seemed as irresistible, as inevitable as the sure progression of the gales or the tides! Across the hill-lands of the East and over the Middle Western prairies, above the tips of rocky snow-peaks and out across sage-littered deserts and forest-covered mountains, we swept onward with serene, unwavering motion, now driving into fog, now roaring through resisting winds well above the clouds, now plunging straight into the sunset, and now soaring between the stars and the vague black rims of jagged ranges.

Twenty-six hours and twenty-five minutes after our departure—or exactly fifteen minutes earlier than Rathbone had calculated—we set foot on the soil of Seattle, where we remained for a few hours while stretching our limbs and securing a new supply of gasoline. Then once more we took to the air, and, after skirting the island-fringed coast of great Alaska and striking out for hundreds of miles across open sea and untraveled land, we arrived in fifteen hours at our Alaskan goal! I shall not linger over the rousing reception we received there, nor pause to depict the amazement of the people as our huge silvery vessel came gliding down to rest; I need only state that it was here that we took on our Eskimos and their dog-teams, as well as our fur clothing and several light Eskimo boats, or "kayaks," which Norwood declared to be indispensable in navigating the ice-littered seas.

It seemed to be little more than a matter of moments—although actually it was quite a few hours—before we had left Nome, had crossed the northernmost fringe of Alaska, and were speeding across the bleak white wastes of the Arctic Ocean. Now at last we could really believe that we were bound on a rare and perilous adventure! Now at last we could shudder and look apprehensive, for on every side were proofs that we had ventured beyond the last gateway of the known! On every side, as far as the four corners of the cloudless horizon, gleamed drifting and broken floes of ice, here and there parted by long lanes of open water, or varied by the peak of some fantastic berg; while a ghostly whiteness, eerie and unreal and yet strangely ominous, had settled over all things except where the ice, beneath the rays of the midnight sun, glinted and sparkled with a cold, iridescent light. Now and then, in some glittering space between the floes, the cruel curved tusks of a walrus would shoot into sight and vanish; once, on a particularly large island of drift-ice, we caught sight of the great "king of the north," the polar bear; while gulls of a dozen kinds, wheeling and screaming about us, tried in vain to keep pace with our flight, and were lost in the great host in the wilderness behind us.

NOW that we found ourselves truly in the domain of the ice-god, a change came over the spirits of all our company. The mood of gay bantering and chatter, predominant in the early stages of our flight, had suddenly deserted us; we all walked about in silence and with grave faces; and dark, tormenting thoughts assailed our minds. Should we ever retrace our way across these treacherous seas? When I observed the dreary and ice-cluttered region we had invaded, I realized for the first time the full hardihood of Rathbone's undertaking; I understood at last the vastness of the obstacles that would confront us. And I began to wonder whether our success were possible; whether, after all, it were worth while to attempt to reclaim so forbidding a region.

Some such thoughts must have come to Rathbone himself; for, as we darted across that icy vastness, I saw him standing at the rail, gazing into the wilderness with the most troubled, disconsolate look I had ever beheld on the face of any man. It was almost as though he had read, in that first glimpse of the Northern seas, some terrible forewarning of his destiny; and his lips, drawn into grave, rigid lines that matched the sternness of his sunken cheeks and the sadness in his eyes, might have marked the face of some captain who sees his ship about to founder.

"What is it, Steve?" said I, coming over to him, and placing one arm heartily about his shoulder. "Not beginning to feel shaky, are you, now that you're within a stone's throw of your goal?"

A moment passed in silence, and I almost thought that he did not intend to reply.

"No, it's not that I feel shaky," he at length declared, in low, sober tones. "But I guess it's that, for the first time, I'm beginning to realize what a responsibility I've assumed. The lives of forty-five human beings are in my charge. And as we go flying across this ghastly

ocean, I'm beginning to think about this craft of ours—if I've made any miscalculation about the strength of the engines or its resistance in a storm, none of us may ever see home again."

"I guess you haven't made any miscalculation," I stated, confidently.

"Again, if I've fallen into any false reckoning about Desolation Isle," he continued, in the same dreary manner, "all our efforts may be wasted. I simply can't afford that."

"Can't afford it?" I repeated, noting what emphasis he had placed upon the words.

"No, can't afford it."

His tone grew even more solemn and secretive. "I might as well tell you in confidence, Rodney, this expedition is costing more than I had figured. I had expected to use a good tidy sum—and that wouldn't have mattered so very much. But *The Pathfinder* alone has cost millions. And when it came to investing my entire fortune——"

"Your entire fortune?" I gasped.

"Yes, and a mighty good part of Ada's fortune into the bargain. I tried my best to stop that—but when she's made up her mind she has the strength of a brick wall. Of course, it's only a loan, and the expedition should enable me to pay it all back—but, just the same, it's like staking all your chances on one horse. If I return without succeeding, I'll be a poor man, and Ada too will be next door to poverty. So there's nothing left but to fight to the last inch. We must win out!"

"We will win out!" I assured him. But as I gazed out across the icy sea, with the great white bergs pointing skyward like warning phantoms, I could not but realize that there was some excuse for his misgivings.

None the less, I began to feel more cheerful as the hours glided past and we moved uneventfully on our way. We did not meet with any of the mishaps that Rathbone's gloomy mood had led me to foresee; the weather, for one thing, could not have been more favorable; while the berg-infested sea proved no more damaging than if it had been a daisied meadow. And gradually the confidence came back to me that *The Pathfinder*, tested and strengthened as it was by every device of modern science, would be able to overcome all obstacles.

I shall never forget the moment when one of the crew, staring with his binoculars toward the dazzling white waste ahead, uttered the triumphant cry, "Land!" Not even Columbus, when his first expedition was crowned by the sight of a welcoming coast, could have felt more exultant than did we at that simple announcement. Of course, we all rushed to the deck in loud-voiced excitement, and all took eager turns in peering through the binoculars; and, of course, our enthusiasm was clamorous and prolonged as one by one we confirmed the discovery. Far, far away, many miles across the frosty wilderness, a bald snow-capped ridge was faintly visible, at first so vague and remote that it seemed only a large iceberg, but gradually displaying dark rifts and linings and revealing mottled gray masses of foothills.

"Desolation Isle! It's Desolation Isle!" we cried, rushing back and forth like squirrels, and jubilantly shaking one another's hands. "In another half hour we'll be there!"

But, as usual, there came some one to cast a shadow across our joy. "You don't want to be too sure," cautioned Norwood, stepping forward with a discouraging grimace. "Of course, we should be approaching the island, but in these latitudes strange mirages sometimes appear. I once traveled for a whole day toward what seemed to be a mountain on the sea-ice west of Greenland. Finally, the whole thing vanished into thin air."

But when once Norwood peered through the binoculars, his manner changed abruptly. "Yes, you're right. It does look like Desolation Isle," he admitted, after a long, earnest scrutiny. "I remember the peculiar shape of the mountain, with its queer broken ridge, giving the rough impression of a human face. Like a devil it always seemed to me—a devil with its mouth opened wide in a sort of sardonic mockery."

This was a fact which Norwood had never mentioned before. Was it that he had not thought it worth mentioning? At all events, his statement was not mere imagination. We were still twenty or twenty-five miles away when the field-glasses showed us plainly the tall, snow-covered, head-like peak that dominated the island, its eastern slope riven by odd dents and fissures which gave it the unmistakable although grotesque semblance of a human face. And it seemed significant, almost sinister to me that, in the chance workmanship of nature, that face should have been endowed with a long, sharp nose and a gaping mouth, so that, as Norwood said, it had the appearance of a laughing devil.

Forthwith, at my suggestion, and by unanimous acclaim, that mountain was christened, "Devil's Peak."

But we had to think of more important matters than the naming of mountains. An indescribable bustling and confusion had come over us all, as the distance to our destination diminished to a few miles. Each of us was rushing about wildly to seize caps, coats, or other articles with which we expected to step ashore; Captain Knowlson was thundering orders to the crew, the crew were scuttling back and forth like agitated rats; most of us were shouting uproariously to our neighbors, with gay banter or sharp, unheeded ejaculations; and all of us from time to time would glance eagerly toward the approaching land.

"Not so bad-looking, after all!" I heard Allenham exclaiming, begrudgingly, and yet with signs of relief, as he pointed to a field of undulating green and brown which reached from the beach toward the rocky spurs of the foothills, perhaps two or three miles beyond.

"I think it's perfectly gorgeous!" enthused Ada, in reply. And she called attention to the wild and fantastic appearance of those foothills, with their many seams and crevices and black canyons varied by the glare of snow-patches and glaciers, while behind them, like a great hood, loomed the spectral white of Devil's Peak.

Not five minutes later, we were soaring above the island itself. Our speed had been greatly diminished, and our course curiously altered: round and round and round in ever-narrowing circles we floated, like some great spiralling bird; while anxiously our captain peered beneath us to select a landing place on the rolling and uneven fields of lichens and moss. For many minutes our ambulatory movements continued, until some of us began to feel dizzy, and others grew excited and impatient, and now and then a hushed whisper of alarm was heard. But gradually we were sinking earthward, and at length the commander, seeming to find the spot he sought, gave the order to halt the engines and descend.

Perhaps that order was executed a little too abruptly; for the next instant, as the whirring of the propeller blades suddenly died out, we began shooting earthward with terrifying speed. Fortunately, only a score of yards separated us from the ground; yet, in spite of the shortness of the distance, we landed with a thud that flung several of us face downward to the deck, and sent more than one of the plate glass observation windows clattering into fragments.

Groans and murmurs of consternation and alarm came from dozens of lips. And at the same time the vessel, quivering like an injured living thing, jerked for a few

feet along the ground and rattled to a halt. At last we had reached Desolation Isle!

CHAPTER V

Desolation Isle

WITH a dizzy sensation in my head and a dull pain in my side, I withdrew my battered form from the cabin door against which I had been violently hurled. At the same time, glancing dazedly toward my dazed companions, I made out one form that stood out above all the others, if only by the quickness and decision of its movements. There was something arresting then in the face of Stephen Rathbone, as with bleeding upper lip and with eyes flashing with an anxious, almost distracted expression, he made his way from end to end of the deck, threw open a little door, and was gone.

It did not then occur to me how fitting it was that he should be the first of us to set foot on Desolation Isle. In my bewilderment, I had no thought except to take my place in the shoving, white-faced group that pushed its way out of the dirigible. A moment later all of us, with little trace of reason or order, found ourselves crowding about our leader; while he, with tense, rigid features, proceeded slowly toward the rear of the airship, while pausing every few seconds to rap with his fists against the metallic walls.

He had covered nine-tenths of the distance when, with a gasp of dismay, he paused. And all of us, pressing forward one upon the other, some on tiptoe and most with straining eyes, gasped in equal dismay. A great boulder, projecting several feet above the surrounding soil, had grazed the stern of the vessel; and there were four or five deep dents where the rock had struck successive compartments.

"God!" muttered Rathbone, with a groan. And, stepping forward, while the blood still streamed from his cut lip, he began anxiously to examine each of the dents, while tapping from time to time with his fingers, and from time to time placing his ear against the metallic walls and listening.

By this time the towering form of Captain Knowlson had made itself apparent, vigorously thrusting its way through the crowd; and behind him the slighter frame of McDougal, the Chief Engineer and Rathbone's scientific assistant. Both men took their places beside Rathbone, and began carefully to inspect the damaged compartments, while the rest of us, still thronging near with excited exclamations, could do little more than stare and wonder.

As Knowlson and McDougal made their examination, the bleak severity of their faces relaxed, and their eyes began to shine with relief. "It's all right!" at length diagnosed the Captain, to our infinite joy. "The metal's knocked out of shape just a bit, but it's holding tight. No air can get in!"

"Thank God!" murmured Rathbone, and, shaking like a leaf, sank in sheer exhaustion to the ground.

But at this point Norwood, who had been standing with his ear against one of the compartments, motioned secretly to me. "Just listen!" he muttered.

I did as directed, but at first heard nothing.

"Well? Make it out?" he asked, with a significant expression.

I listened more attentively still; and then, all at once, I seemed to hear. Could it be only imagination? Or was it true that a low, hissing sound, as of intake of air, came indistinctly to my ears?

"Yes, I hear!" said I. And, glancing at Norwood, I read in his eyes the alarming explanation.

"Well, after all, it's only one compartment," he whispered, in the manner of one trying to convince himself. "Not necessarily fatal."

And then, in louder tones to Knowlson, who was elbowing his way toward us, "Just listen here!"

Knowlson bent down, and did as requested. "I don't hear a thing!" he finally declared.

Norwood grunted something that sounded like an oath.

"You, then?" he called to McDougal. "Come, see what you can hear!"

McDougal also repeated the experiment, and likewise heard nothing; whereupon half a dozen others, including Rathbone, followed his example. One or two looked a little doubtful, but all ended by agreeing that there was no recognizable sound. And the outcome was that Norwood became the target of much good-natured chaffing. "He always does look on the dark side of things!" the majority made haste to assert. "Knows how to find faults where no one else can."

And with that they were content to dismiss the matter.

"Just the same, we have a crippled machine!" Norwood stoutly maintained. "If you can find the leak, there may still be time to fix it."

But this remark was greeted with laughter, and most of our company, satisfied that Norwood's judgment had been affected by the shock, proceeded to forget all about the alleged damage.

Our misadventure, however, did require an explanation. "We came down much faster than I had intended," I heard Knowlson state to Rathbone. "Somehow the engines, working at about one-quarter normal capacity, seemed unable to hold us up. And in the suddenness of our descent, we had no time to release the rubber-lined landing wheels."

Now that the shock of the arrival was over, the jubilation of our party was even greater than one might have expected. The cheering, while belated, gained impetus from our relief, and several of us began gamboling like lambs about the lichen-covered soil, delighted to be once more ashore. Truly, the Arctic did not seem unfriendly! Though icebergs drifted about the sea and though the white dome of Devil's Peak and the nearer white of a great glacier looked grim and forbidding, still the breezes that rippled about us were gentle enough, and I had experienced more biting cold on many a July day so far south as San Francisco. It was therefore but natural that all of us, remembering only that this was midsummer and forgetting the approaching winter, should feel an unthinking confidence. "Well, at last we've done it, haven't we?" I overheard Allenham drawling, in a self-satisfied way, as though to take credit for the entire expedition; while Ada, replying with a beaming smile, and a gay "I just know we'll succeed!" echoed an optimism shared by all except the worried-looking, withdrawn Norwood and the anxious-faced, furiously active Rathbone.

I SHALL pass briefly over the remaining events of that day. After our first sharp exultation, and after a ceremony wherein we raised an American flag on a little ice-lined promontory and solemnly took possession in the name of the United States, we were all so busy as to have little time for thought. The entire cargo of *The Pathfinder*, a matter of many tons, had to be unloaded, prior to the ship's flight back to Nome for further supplies; at the same time, the dirigible had to be moored securely, and its engines and machinery had to be tested and oiled, and we had to erect our permanent shelters out of materials carried in the vessel's hold

Let me say at this point that those shelters represented something new in the way of Polar homes. No

Eskimo snow-huts for us! Rathbone, with his usual ingenuity, had devised collapsible houses, the interior walls constructed of a thin layer of steel lined with insulating composition, the outer walls cloaked with sheets of a light, fibrous material produced from asbestos and wood pulp. "This substance is one of the poorest conductors of heat ever discovered," Rathbone explained. "Therefore it will enable our houses to retain their warmth, and will protect them against the winter's blizzards."

To my surprise, it was only a few hours before the houses stood in place, seventeen of them in all; one of them intended as a storehouse, one as a community kitchen and dining-room, the others each designed to accommodate three persons, and each containing three bedrooms and a small sitting-room. The walls, as I saw them taken from the dirigible, were doubled up like folding checker boards; and each, after being opened out at full length, fitted into its neighbors with neatness and precision by means of grooves at the ends, supplemented by stout steel clasps. By way of underpinning, sharp steel rods at each corner were forced into the soil to the depth of four or five feet, so that, in spite of their lightness, the dwellings would be able to withstand a powerful gale. For added protection, we erected them all side by side with their backs against a hillock that would shut out the north wind; hence, though there was no way of excluding the blasts from the sea, which beat against gray cliffs thirty feet beneath, we all felt reasonably secure.

Another advantage of our location—and one that was especially appreciated on stormy days—was that a supply of fresh water could be secured from the little stream that rippled at one side of our settlement, and fell with a hoarse roaring into the ocean. True, we could not boast all civilized advantages; our new residences were hardly objects of beauty with their twenty-foot square frames, their unadorned dark-brown sides, their single doors and narrow windows; true, also, that we had as yet no modern heating, lighting, or cooking apparatus; true, again, that one or two of our company, including Allenham, grumbled a little upon observing the bare, plain interiors, and complained that such quarters were "worse than camping out." But the majority of us were well satisfied, and were willing to take Norwood's word that never in all the annals of Arctic settlement had such spacious, comely and luxurious homes been known.

Our first night on Desolation Isle—or, rather, our first "sleep," since, at this season, the sun never set—was passed in these houses on cots removed from *The Pathfinder*. Although it was to be two days before the vessel left for the south, all of us already preferred the houses to the relatively cramped accommodations on the ship.

Before the departure of *The Pathfinder*, a heated council of war was held. Some of us maintained that, in accordance with the original plans, our craft should proceed to Nome for fresh supplies, and then without delay return to the island; a few others, including Norwood and myself, contended that the damaged compartments should first be repaired. This would necessitate a trip down the coast as far as Vancouver or Seattle, or possibly even San Francisco, since there were no adequate repairing facilities in Alaska; and a delay of at least a week or ten days was probable. As a consequence, Rathbone's plans would be materially impeded. "We can't go ahead with work here till we get more supplies," he explained, impatiently. "I don't want to waste any part of the summer, which is none too long at best." The one question, therefore, was whether the proposed repairs were necessary. Norwood held that they were; several others argued that, merely as a precaution, they were desirable; but Knowlson, McDougal and Rathbone, after careful investigation and long debate, concluded that the dented compartments, while giving *The Pathfinder* a rather weather-beaten appearance, would certainly remain airproof.

It was with a shock that I heard this decision. I do not not know why, but I shuddered just a little, as if from some dread premonition. Even today, looking back from the distance of years, it seems to me that here was one occasion on which our leader was guilty of a grave oversight; that here for once his sober scientific judgment forsook him, and he allowed impatience to get the better of discretion.

Most of my companions, however, did not feel any misgivings. It was a gay and rousing farewell that we paid to *The Pathfinder* as, with her crew of eight, she once more took to the air and soared proudly southward across the ice-infested sea, at first a huge cigar-shaped patch darting through the serene, clear air, then a mere black speck against a remote fringe of cloud, then a dot, and then vanished completely.

AFTER she was finally out of sight, we arranged for the most important task since our arrival. This was the task of exploration. It was necessary to know the exact nature of our surroundings; necessary, above all, to select the spot where Rathbone might begin his excavations as soon as *The Pathfinder* had brought us all the necessary materials. Accordingly, we planned to penetrate inland as far, if possible, as the base of Devil's Peak, making a careful survey of the country on an expedition lasting possibly eight or ten hours.

It was decided by lot which of us were to join Rathbone on this expedition, for half of us had to remain at camp, storing and making an inventory of the provisions lately discharged from *The Pathfinder*. And the turn of chance could hardly have been more to my liking: Ada was among the first to be chosen, and I quickly joined her; while Allenham was selected to remain in company with the packing cases. It gave me a malicious pleasure to see how he scowled upon the announcement of this choice, and how eagerly he volunteered to relieve me of my duties. But I tactfully refused his kindness, and made haste to accompany Ada, as, laden with a day's provisions, we set out northward toward Devil's Peak.

At first our course lay over undulating tundra, carpeted with a dense green plush of lichens and mosses; and as we made our way through this soft, yielding vegetation, I chatted merrily with my companion, giving more attention to her, I am afraid, than to the countryside. But, after a mile or two, we began to ascend slightly, and great, rugged masses of rock, whereon the vegetation appeared only in scattered tufts and patches, intruded upon our path. Even so, the slope was not precipitous, although sharp and broken in places, and in other places rolling in great, irregular bends and folds that had to be negotiated with much caution.

In spite of my preoccupation with Ada, I noticed with what care Rathbone was examining the plants and the various rocky strata, and with what interest every now and then he would pick up and scrutinize some particle of earth or stone. "By heaven!" I chanced to hear him exclaim, as he took up a reddish brown rocky mass and passed it to James Kenworthy, the young geologist who was one of his scientific assistants. "What do you make of this?"

Kenworthy mumbled something that I could not quite make out, and his next words, uttered a moment later as he passed the reddish mass back to Rathbone, were quite confusing. "There can be no doubt at all. It is as you have surmised."

Not liking the mysterious sound of this, Ada and I pressed forward until we had caught up with Rathbone and his companion. "What is your great discovery, Steve?" I demanded. "Just what have you surmised?"

"Why, something that may be rather significant," he returned, in a drawl. And, thrusting the red rock beneath my very nose, he continued, "You see this. Well, it's an iron oxide, whose peculiar texture leads me to believe it the combustion product of the molten or vaporized iron hurled up during a volcanic eruption."

"You think, then, this is a volcanic island?"

"I don't think it—I know it. Observe that glassy structure there." Here he pointed to a satiny, shining rock that, in places, seemed almost translucent. "And notice that rough, rolling surface beyond, rising in irregular black bends and ridges. There is only one explanation. Isn't that so, Kenworthy?"

"I am afraid so," nodded the geologist. "The rocks in this region are predominantly basaltic. We are now walking on a field of cooled lava."

"And what is more," added Rathbone, "it is lava that could not have cooled very long ago. Everywhere it occurs in the surface layers, you see, and the absence of any overlying deposits indicates that there has probably been no great lapse of geologic time."

"You mean," I gasped, "that there has been a volcanic eruption within recent years?"

"Comparatively recent," corrected Kenworthy. "A few hundred years, or a few thousands—geologically speaking, it is a moment. On such a small island, and up here in the Arctic, it is difficult to estimate the time, for there would not be likely to be any great wind-blown sedimentary deposits, or any vast amount of animal or vegetable remains to cover up the lava. On the other hand, there is no evidence of a submersion beneath the sea, which, on an island like this, would be more than probable if there had been a lapse of many geologic ages."

"Then we may be near a live volcano right now?" inquired Ada, a gleam of vivid interest in her big blue eyes. "We may actually have an eruption while here?"

"Not at all likely," denied Kenworthy. "Volcanic eruptions ordinarily occur only at rare intervals—and have never been reported at all in these latitudes. To be sure, they are occasionally found a little farther south, in Alaska and the Aleutian Islands. And yet, everything considered, it is pretty safe to say that Devil's Peak is not going to offer us any fireworks."

"And so Devil's Peak is the volcano?" I asked.

Kenworthy glanced at me with a curious smile. "It certainly is—unless there be some other fire-mountain hidden behind it. You will notice its peculiar shape—how split and broken it is. That opening there"—he pointed to the mouth of the great face roughly outlined by the peak—"was doubtless caused by the explosive escape of lava through some fissure in the mountain's side. And that flat patch up there"—he called attention to a wide level space at the summit of the peak—"that flat patch is almost certainly where you would find the main crater, if you venture to climb that far."

I must confess that I was just a little disturbed by this information. "Oh, well, after all," I ventured, no doubt partly to appease my own fears, "I don't suppose it can matter much whether or not we are on a volcanic isle."

"Don't be too sure!" flashed back Rathbone. "It may make quite a difference. I'm not sure yet whether it will be a help in our experiments, or a hindrance. When we get to boring down some distance, we may find the temperature very much affected by the hidden volcanic energy. Again, the volcano may be so long extinct that it will not matter in the least."

Probably I would have asked some further questions, had not something more urgent put an end to our conversation. After passing through a narrow defile between ridges of scarred and twisted rock, we had come out upon one of the most magnificent scenes I had ever beheld. Here was the lake of which Norwood had told us! Deeply blue, with the strange, bewitching blueness of glacial water, it stretched for half a score of miles among the folds of cloven and snowy hills, its glittering surface varied by the white of drifting ice-floes and miniature bergs, its entire western extremity flanked by the spectral slopes of a great glacier, which receded beyond a long ridge and out of sight. Across from us, at a distance of three or four miles, Devil's Peak lifted its frozen heights from amid a rugged black-and-white confusion of foothills; while beneath us to the east, beyond a low pass, glittered the ice-strewn wastes of the ocean.

"It looks just as if some enchantress ruled over it with a story-book charm," commented Ada, who was the first of us to speak. "And yet there is something so aloof and unfriendly about it! It seems so frosty that my teeth want to chatter!"

And from that remark the blue-and-white expanse took its name. "Frost Lake" it was ever afterwards called.

CHAPTER VI

The Pathfinder's Last Flight

ONCE we had explored and mapped the territory in the vicinity of Frost Lake, it was not difficult for Rathbone to lay his plans. A series of pipes connecting with the lake would lead down to a meadow enclosed by low ridges, where, at a distance of about a mile from our settlement, Rathbone would commence his excavations. A power-plant, erected at the edge of the sea a few hundred yards from the shaft, would supply the necessary electricity; and between the power-plant and the tunnel, and between both these spots and the settlement, a roadway equipped with electric lights was to be built against a sheltering rocky embankment, so that we would not find it impossible to make our way even through the wintry darkness and the blizzards.

While awaiting the arrival of complete supplies in *The Pathfinder*, we busied ourselves in constructing the roadway and the power-house. All hands, including the two Eskimo dog-drivers, shared enthusiastically in the work; even the Eskimo dogs made themselves useful in hauling materials in an improvised cart; and most of us took our activities half in a spirit of sport, and laughed and jested as we wielded spade and shovel, or selected the spots at which to hang the lights. The easiest task of all was to erect the power-house, which, being made of the same collapsible materials as our dwellings, was thrown up in an hour; but it was by no means so simple to set up the electrical generating apparatus. I was hardly surprised, of course, to observe the dynamos which had been taken from *The Pathfinder*, and which the dog-teams with great difficulty hauled to the power-house as soon as the roadway was completed; but I was much surprised and puzzled to see the curious steel contrivances which accompanied the dynamos. Composed of hollow rods several inches thick, which were capable of fitting into one another until they reached a length of hundreds of yards, these objects were featured by enormous springs attached to one end and apparently capable of almost infinite compression.

Not being able to imagine the purpose of such odd-looking mechanisms, I sought the man most likely to be able to enlighten me.

Then all at once, as it drew nearer, its movements became fantastic and uncontrolled.

But Rathbone, upon being questioned, merely smiled enigmatically. "Another of my inventions, Rodney," he stated. "Wait and you shall see how it works."

Upon being pressed for information, however, he went on to explain: "Those are the electrical generators, which I believe I have already mentioned to you. They work according to a new principle. You must wait till it gets good and icy before seeing them in operation."

I did not comprehend, and possibly I looked my bewilderment.

"They are built on a basis of ice-power," he specified. "Here is the greatest source of unutilized energy on the Arctic, and one of the greatest in the world—if you leave out of account the subterranean forces I am going to tap. No one can say how many million horse-power go to waste every winter in the pressure of the drifting ice. Remember only this, Rodney: the ice-fields are hundreds of miles broad, and from three to twelve feet in average thickness, although in some places twenty, fifty, and even a hundred and twenty feet deep. You can get some idea of the stupendous energy of this ice when I tell you that the so-called pressure ridges—which are frequently fifty or sixty feet high and many miles long—are thrown up by the thousands every winter.

"You mean to say that those great ridges are caused literally by the pressure of the ice?"

"By that, and nothing else. And it is this unused force that I propose to tap."

"But how?" I questioned, still wondering about the steel tubes I had seen.

"By the simplest method imaginable. Very often, even during the extreme cold of winter, the ice-pack

will split, leaving lanes of open water or 'leads,' which will come together again with a shattering force. I intend, among other things, to avail myself of these openings. The end of my steel tubes will be crossed at right angles by stout disk-like metallic attachments yards across, so that, when the tubes are joined together and reach far out across the ice, the disk-like surfaces may rest against the further side of a 'lead.' When the lead closes, my apparatus will inevitably be pushed back with tremendous force——"

"Yes, and snapped apart!" I interrupted, still not able to make head or tail of Rathbone's plan.

"They might be, or else be warped beyond recognition—were it not for the springs," stated Rathbone, quietly. "These, which are several feet across and are capable of contracting so as to receive a pressure of many tons to the square inch, constitute the very crux of the invention. The tremendous force transmitted to them by the rods will in turn be transmitted to another series of springs, and then, by means of wheels and revolving chains, will be conveyed to the dynamos, which will convert it into electrical power according to principles already in common use. I will have several of these machines in constant operation, some of them depending not upon the 'leads' but upon the continual moving pressure of the ice-pack against the shore. Thus, you see, we shall not lack a source of energy."

"Yes, but will you get sufficient power?" I demanded, doubtfully.

"Sufficient?" Rathbone laughed, in a dry, faintly scornful way that he had when asked some ludicrous question. "We'll get ten times more than sufficient! Why, we'll have enough to keep our houses electrically heated and lighted; to do most of our chores by electricity; and at the same time to run an electric pumping plant, which will be indispensable in performing the excavating according to a new plan that I have in mind."

I did not have the chance to inquire how a pumping plant could aid in the excavations, for our conversation was ended at this point by someone who came up to ask Rathbone some question concerning some detail of the day's work. It was to be many weeks, indeed, before I was to have my answer, and meanwhile a series of strange and stirring events was to prevent me from repeating my query.

DURING our first two or three days on Desolation Isle, the place had not seemed to deserve its forbidding name. The temperature had been so mild and the weather so clear and sunny that, except for the continual daylight and the sight of ice in the sea, we could hardly have believed that we were in the Arctic. But on the fourth day there came a change. True, it was a comparatively slight change, and less than we had often experienced in the temperate South; yet our spirits were completely transformed by the bleak, chill wind that came howling from the Pole; while the dreary, drizzly rain seemed to breathe a warning that the stern gods of the North did not mean to spare us. Besides, there was a definite reason for gloom. In another day *The Pathfinder* was expected on its return from Nome—and what if it were blown out of its course or damaged by the gales? Realizing that the safety of the dirigible involved our own safety and the success of our expedition, we passed many an anxious hour, while the world about us was enveloped in an opaque and ominous dampness, and we were not quite reassured by Rathbone's assertion that *The Pathfinder* was proof against any wiles of the weather.

On the following day, however, the winds abated, the clouds lifted, and the heartening sunlight appeared. And now we all thronged the beach, several of us with binoculars, searching the vague distance from which the airship was expected to arrive. At first we searched in vain, and misgivings about the damaged compartments smoldered in the minds of more than one of us. But only a few minutes after *The Pathfinder's* scheduled time of arrival, a great shout went up from one of the watchers, and the rest of us, crowding about him with excited exclamations, took turns in gazing through the field glasses. Surely enough, there she was! Low down amid the remote blue, we were able to distinguish a minute black object, little more than a wavering speck, which gradually expanded into a silvery ellipse, and then into the enormous gliding fish-shaped vessel that we knew so well.

I shall pass over our impatient waiting as the ship descended, and the joyous reception we accorded the returning crew. The one important fact, it seemed to us, was the statement of the commander that the trip had been uneventful, and that the injured compartments had caused no trouble. But, oh, the false sense of security that this gave us! Even Norwood seemed satisfied; even Norwood seemed to have been lulled to a charmed complacency, and did not offer any further suggestions about repairing the damage. And so, after the vessel's cargo had been discharged and the crew had been given a well merited day's rest, *The Pathfinder* set off once more for Nome, which it reached in due time, and from which it returned as before with supplies previously delivered by steamer to the Alaskan port. Six such round trips in all it made in the course of the next few weeks, and a vast amount of provisions, in addition to pipes, tools, and machinery of various kinds, lay scattered about the island, before the vessel set out on its seventh and last scheduled trip. By this time we had all fallen into an easy optimism, and had begun to regard a voyage from Nome to Desolation Isle almost as much a matter of course as an excursion from New York to Jersey City. And we were in no way prepared for the event that lay in store.

When at length *The Pathfinder* set out on its seventh trip, we had been on the island for more than a month, and the brief but increasing periods of twilight, which now varied each day, announced to us that we must soon make our preparations for the winter. Hence in many ways we were thankful that this was to be the dirigible's last expedition this season.

It was a clear, fine morning when the airship set out, and the weather, while grown somewhat chilly, did not seem unkindly disposed. We could, therefore, have had no reason to anticipate that which lay just ahead. Even on the second and third days, when a stiff gale arose out of the north, we did not feel any uneasiness; and on the fourth day, when *The Pathfinder* was due on her return trip, most of us were still calm and unperturbed, although the wind now went roaring and blustering past as if some surly demon possessed it. We knew that our craft had had no difficulty in braving storms before, and some of us were not even sufficiently concerned to take their places with the watching crowd on the beach at the hour of *The Pathfinder's* expected return.

Shall I ever forget what a wild and frightening day that was? Great, ragged, black masses of cloud were drifting crazily across the heavens, by turns sunny and obscured, while the screeching of the wind was mingled in demoniac chorus with the thundering of the waves and with the occasional crunching and grinding of huge ice-cakes as they were slapped and pounded together. Had I been a believer in old superstitions, I could almost have imagined that some evil spirit was abroad, exulting in tumult and destruction; responsive to the mood of the elements, I felt more than a little fearful and subdued.

Yet my companions, so far as I could observe, did not

share in any such feelings. Though shivering just a little and rubbing their hands vigorously together or striding energetically back and forth to keep warm, they seemed entirely cheerful and, during brief lulls in the storm, they conversed lightly and casually, discussed what they were to do with the materials expected on *The Pathfinder*, called out gaily to one another above the wailing of the wind, and in general appeared carefree as schoolboys.

After a time, however, their manner became a little more sober. All jests and chatter were yielding to the bitter mood of winds and waters; watches were being consulted frequently, and no one spoke except to lay occasional wagers as to who should first sight the dirigible. But an hour went by, and no one had caught a glimpse of it. Two hours passed, and we had become vainly excited over several false alarms—more than once we had mistaken low-flying wisps of cloud for *The Pathfinder*. Three hours, and we were growing profoundly impatient—several of us, with teeth chattering, had retreated to the warmth of the houses; while several others, who would not join us at first, had come out to mingle with the grave-faced, watching crowd on the beach.

BUT even now we were not actually alarmed. No doubt we were a little anxious, but reason told us that there was still no cause for fear. "Probably the men started out a little late, as they did once before," suggested Rathbone, whose face was the most grimly set of any, and whose eyes the most restless in searching the storm-troubled sea and sky. "Besides, facing such a head-wind as this, their speed would be much reduced. Considering that handicap, they are hardly overdue even now."

At first most of us willingly clutched at this interpretation, but, after another hour or two, it would no longer content us. And then Rathbone was ready with another explanation. "One or maybe two of the engines have failed them, and they are sailing under reduced power. It may still be an hour or two before we sight them."

But his features, as he uttered these words, looked strained and haggard, and his eyes wore an intensely troubled expression.

The wind, at about this time, had died down momentarily, only to spring up again with redoubled energy. And as it flashed in screaming pandemonium across the white-capped waves and the lashed and groaning ice-blocks, its notes were shrill, as if with mockery and derision.

By now our whole small colony had come down upon the beach, many of us shivering, and most of us fighting against the greater chill gnawing at our hearts. But words still were few, while all eyes were fastened upon the cloud-swept distance.

It was when the tension seemed nearest to the snapping-point that there came a sudden relief. Norwood, who for several minutes had been standing on a little crest of land gazing southward with the binoculars, startled us all with a great shout. "There she is! There she is!"

In a screaming mob we all came flocking about him. "Where? Where? Are you sure? Are you sure?" And some trembling with joy, muttered a heartfelt "Thank God!" while others, disillusioned by previous false alarms, merely stood by and waited.

One by one we took our turns with the binoculars. And one by one, shouting with delight, we confirmed the report. "There she is! There she is!" For a minute, a low-lying object, not far above the crest of the waves, certainly was speeding toward us!

And a tremendous cry of rejoicing, drowning out even the bellowing of the gale, went up from us all. At last our worries were over!

How much greater, therefore, was the approaching shock! Had our thanksgiving, after all, been premature? So we began to ask when the dirigible, driving nearer and nearer, had come within range of the naked eye. For something peculiar about its movements began to be noticeable to us all. Could the mauling and buffeting of the gale account for the mad zigzags described by the craft? Was it only because of the storm that it followed strange loops and curves in the air, at times lunging and wavering from side to side, more often sagging in its stern or starting downward as if to do a nose-dive, then righting itself and possibly for a moment sailing on an even course, then repeating the whole queer performance, and diving and soaring anew? Once, descending at an angle of forty-five degrees, it came so near the waters that we gasped and thought it about to be submerged; once it hovered briefly above a large ice-cake, as though contemplating a landing on this unstable surface—and never for twenty-five seconds did it follow a regular course!

Not many minutes could have passed while we stood watching the wild maneuvers of *The Pathfinder*. But to all of us, waiting helplessly with blanched faces and gaping eyes, the time seemed hours long. Gradually, however, the vessel was drawing nearer; gradually its cigar-shaped frame loomed vast between us and the purple-black accumulating clouds, and we began to hope that soon it would be safely ashore. Then all at once, as it drew nearer, its movements became more fantastic and uncontrolled than ever. Was a crazy man at its helm? Or was the rudder broken? Or the fuel improvidently exhausted? Or was it incapable of making its way against the heavy wind? Even as we wondered, the ship's stern, slanting suddenly downward, sent the white spray flying; then the whole craft shot skyward, and then down once more, as though engaged in a circus performance. Murmurs of dread and horror came in chorus from a score of throats; many lips moved as though in prayer; Rathbone, clenching his fists till the nails bit into the flesh, paced back and forth with eyes glaring in despair. For, although not more than a mile from shore, the dirigible seemed unlikely to reach safety.

But on and on it staggered, with insane twists and jerks, and falls and rises, as though climbing unseen mountains in the air. And our eyes caught glimpses of little black forms moving in furious agitation about the heaving, swaying deck. Somehow, as though by a miracle, it managed to escape the waters that opened time after time to receive it; somehow, though its sides were gray from repeated contact with the waves, it continued its drunken flight, till it seemed about to descend upon the rugged, cliff-lined coast half a mile to our west.

How it managed to struggle that far is still an unsolved mystery. Yet, had it been able to hold out even a few seconds longer, disaster might still have been averted. I remember how hope leaped to our hearts while we raced westward along the sands, and the vessel, almost reaching a projecting fringe of the cliffs, quivered and shuddered like some harassed living thing, and hovered high in air as though seeking some suitable landing.

But only for one second it hovered. Then so swiftly that our reeling senses could not take in the full horror, the stern of the vessel dipped earthward and, with the abruptness of an apple released from a tree, the ship began to fall. Down, down, down, down!—and seconds before the deafening din and clatter was borne to our ears, we saw it strike with a mighty splash among the reefs and ledges at the cliff's base.

Gasping and crying out in terror, we stopped suddenly short—in place of *The Pathfinder*, there was only a twisted, distorted heap of metal half-submerged amid the foaming waves and the ice-floes.

And the wind, rising more uproariously than ever while the last confused echoes were still crashing on our ears, seemed again to be shouting in mockery and exultation.

CHAPTER VII

Marooned

I SHALL never be sure just how we made our way along the beach and around the cliffs to the scene of the wreck. But one by one, in a long, straggling line, each pushing ahead as fast as his straining lungs would permit, we sought the spot where *The Pathfinder* lay, a great, battered, steely mass, her prow buried beneath the waves, her stern caught on an outlying reef and ripped into two huge half-severed segments. I can only guess what thoughts came to my companions at that dismal sight; but I remember that I, too profoundly shocked for coherent ideas, was concerned less about the loss of the dirigible than about the fate of its captain and crew. The full, devastating significance of the catastrophe was not to dawn upon me till later—but now, as I raced along the wet sands or leapt precariously from rock to jagged rock at the base of the cliffs, one question kept repeating itself and repeating itself amid the chaos of my mind. Had the men survived?

I believe that more than once, in my mad impatience to reach the ship, I myself risked death as I waded knee-deep through the water or sought my balance on some slippery ledge above unknown depths. There were times when, as I glanced out across the white-sprayed shoals, I believed *The Pathfinder* to be inaccessible—yet I saw how some of my fellows had pressed on before me, sometimes seeking the treacherous foothold of an ice-cake, sometimes slipping and being forced to swim in the chilly waters. All of them had apparently no eyes except for that huge, shapeless mass of metal, which, as we drew near, showed seams and gashes where compartment upon compartment had been wrenched open. And, as we drew near, an ominous silence seemed to fill the place; above the roaring of the billows and the crunching and groaning of beaten ice-blocks, we listened for a sound that did not come. When only a few yards separated me from the huge twisted metallic hulk, my heart sank within me, almost as though I knew myself to be approaching a tomb; and, as I strained my ears for the tones of a human voice, even a call of agony would have been welcome.

Obviously, the part of the vessel to investigate was the forward portion, which contained the cabins. Perilously I approached this section, balancing myself upon a half-submerged reef, and being saved from a cold plunge only by clinging to the bent and tattered metallic projections on the ship's side. Then suddenly, rounding a turn in the ruins, I received the greatest shock of all. The cabins were under water! I could make out clearly the position of the deck promenade, the portholes invisible beneath the waves, their glass presumably shattered into a thousand fragments—while between the roof and the water-level there was a space of hardly more than two feet.

At that sight I was ready to give up hope. Obviously not one of the vessel's occupants was alive! Even if they had survived the fall, they had all been drowned! So, at that despairing glimpse, I was prepared to admit—yet as I stood there, trembling with the shock, an unexpected sound came to my ears. Was it but the roaring of the waves? Or was it something living and familiar?

Hardly daring to breathe, I stood there, listening, and, after a moment, the sound was repeated. Long-drawn-out and dismal, it seemed hardly human, seemed more than half like the moan of a beast in pain. But following it immediately, while I stood there at gaping attention, there came another sound, sharper and much more distinct. "Help! For God's sake, help!"

"Where are you?" I shouted back, my heart beating fast with sudden hope. "Where are you? Where?"

And at the summons of my voice, several of my comrades, with loud, indistinguishable clamoring, came scrambling toward me across the hazardous rocks.

"Where are you?" I yelled once more. And there came an immediate reply, forlorn, gasping, as of a man in torment. "Here! In the vessel! Here! Here!"

By this time I had been joined by Norwood and the specter-white Rathbone. "Don't you see?" cried the former, grasping my arm furiously. "They're still in the cabins! We must get to them before it is too late!"

"Help! Help! For God's sake!" came the voice, fainter this time. And the wind answered like a sneer, and the waves leapt wildly against the torn side of the airship, which seemed to be sinking by inches even as we watched.

Norwood, without taking time to explain, was now hastening toward the vessel's stern.

Wondering if he had gone mad, I followed, and I saw him wade knee-deep and plunge into a broken compartment, near which I knew the store-rooms to have been.

It was only a few seconds before he emerged, dripping and with torn sleeves, but triumphantly wielding two steel axes. "Here, take one!" he called to me, in tones barely audible above the screaming of the elements. "This is the only chance! We must break through the cabin roofs!"

"That is, if anyone is still alive!" I thought I heard him muttering as I reached for the ax, and we retraced our course along the spray-beaten ledges.

A moment later, motioning to me to follow, he took his perch on a ridge of rock projecting above the cabins. As I climbed to his side, I realized that our blows would not be long in beating down the thin metallic roof; yet I knew that we had not a moment to waste. "For heaven's sake, hurry!" urged Rathbone, gazing at us from below. And a dozen others, searching vainly for implements with which to aid, echoed that despairing cry.

By this time all sounds from within the ship had ceased. But, amid the tumult of our blows, it would not have been possible to hear a foghorn. Stroke after heavy stroke we took, each threatening to fling us from our precarious perch; stroke after stroke, which reverberated with a strange hollow sound, until, first in small patches and then in larger, the metal of the roof gave way and we had hammered out an open space several feet square.

When at last we were able to peer into the cabins, a strange sight met our eyes. The water reached to within a foot or two of the roof; but on the black surface, at its further end, a queer-looking object indistinctly floated. By straining our eyes, we were able to identify it as a wooden cot. And, by further straining, we could make out two long dark strips clinging to that cot. They were the arms of a man!

While I cried out in horror, Norwood muttered something under his breath, and performed an heroic deed. Flinging himself into the ice-cold water, without taking time to do more than remove his boots, he climbed through the battered opening into the cabin, swam across to the floating cot, vanished for a second, and

then reappeared, dragging a long, dark, corpse-like form. And I, as I flung myself after him into the water, and took my shivering place at his side, recognized the deathly pallid face and the closed eyes of McDougal, our chief engineer.

To lift the lifeless form out of the wrecked compartment and to the comparative safety of the rocks, almost exhausted the combined energies of the two of us. Yet, as soon as the stricken man had been extricated and left in the care of our fellows, who busied themselves to warm the frozen limbs and put breath back into the exhausted lungs, Norwood and I had to hurl ourselves again into the icy heart of the ship, where the Captain and six members of the crew were still to be found.

Unassisted, the two of us would never have been able to accomplish the task, and might ourselves have succumbed. But we had the aid of Rathbone and four or five doughty companions in what appeared to be a well nigh hopeless task.

Afterwards, when considering the risks that we took, it seemed almost miraculous to me that any of us escaped drowning in the labyrinths of that sunken ship. Nowhere did we have more than two feet of leeway beneath the ceiling; yet, despite this handicap, and despite the darkness and the paralyzing chill, we made our panting way from cabin to cabin through scarcely seen doorways, and accomplished rescue after rescue. Here we would find a man clinging to an overturned table, with numbed fingers that seemed about to release their grip; there one that, nearly exhausted, had found a berth on a drifting air mattress; beyond, we would observe chairs and boxes and slabs of ice that buoyed men more than half unconscious; while great bruises and gashes and even broken ribs and legs revealed themselves once the sufferers had been removed into the daylight. Rarely, I am sure, has a more difficult rescue been attempted; yet we persisted until the last man had been accounted for; and then, ourselves as much in need of attention as the victims of the wreck, we struggled back to the foothold of the ledges, where, panting and shivering, we would have collapsed had not our comrades supported us, and led us back across the reefs to a great bonfire that had been lighted in a dry, sheltered corner of the cliffs.

It must have been a curious spectacle that we made in that wild, rock-walled place, as, drenched and ragged, we flung ourselves close to the reviving flames, while through the distance the wind still screeched and roared, and the harried waves and ice-blocks pounded the shore. A curious spectacle it must have been, but a forlorn and terrible one!—some of us still half-conscious, some groaning in delirium; some with teeth chattering, and some furiously rubbing the all-but-frozen limbs of their companions; and all the time few of us daring to speak except in muttered monosyllables, but many exchanging meaningful, despairing glances when for a moment they could forget their injuries or the torments of their fellows.

For over all of us, drowning out all individual suffering and making all other trials dwindle to nothingness, had come the shadow of a dread realization: our one means of communication with the world had been shattered, and we were marooned on Desolation Isle!

CHAPTER VIII

In the Shadows

AFTER that desperate adventure amid the cold waters, there followed a long period that is almost a blank in my mind. Yet I know that there was a throbbing sensation in my head, and a pain in my chest, which made it difficult for me to move, and excruciating to breathe. I know that I felt by turns chilled and burning, and that queer delirious fancies came to me as I lay upon my cot, consumed with fever. Repeatedly the thought would flash upon me that I was pursued by evil spirits and, in my crazy imaginings, I would see Devil's Peak take human form and come stalking toward me, a malicious sneer upon its demon face, while a rattling as of dead bones was on the wind and I felt myself clutched and hurled into some dark cavern, which would turn out always to be the wrecked cabin of the dirigible, in which I would struggle with icy fiends.

The meaning of all such distorted visions, of course, is not hard to divine. The shock of prolonged contact with the chilly waters had been more than my system, unprepared for such rigors, could endure; I had suffered from congestion of the lungs, and a fever that came near to ending my earthly worries. For many weeks—six or eight in all, I was told—I lay upon my couch of pain, lingering close to that dread border-line which none may cross twice. I was vaguely conscious, from time to time, of the grave face of Dr. Straub, the physician of our party; I was mistily aware, also, of other faces, among which I thought I recognized those of Rathbone and Norwood; and now and then I had the blurred impression that there were hasty comings and goings, and excited scurryings to and fro. . . .

But my first distinct recollection is a more pleasant one. One day, after what seemed to have been a long, long sleep, I opened my eyes to become clearly aware for the first time of the aspect of my sick-room, with the plain dull-brown walls hedging me in, while a glass of water and some medicines rested on a tiny table at the side of my cot, and a gray light filtered in through the curtained rectangle of the window. But these things were not what held my attention. Bending over me, with an expression infinitely solicitous and tender, were two well-known eyes of deep blue—eyes that, however, had a troubled expression I had never observed in them before.

"Ada!" I murmured, drawing my wasted hand from beneath the coverlet, and attempting to smile up at her.

"Don't try to speak!" she cautioned, putting her fingers to her lips, and smiling back in a wan, sad way. "You must not exert yourself. You must save all your strength."

None the less, I attempted to smile again at her, and to reply to her words. And, at this, an overwhelming weakness came over me, and I sank exhausted to my pillow, and stared at her in silence. But from that time, I knew that I would get well.

My recovery, I am sure, was hastened by the repeated visits she paid me. Every day she would come, and sometimes would sit at my bedside for hours; and no nurse, I am sure, was ever more gentle or thoughtful or attentive. But once or twice I saw Allenham with her, and then a weight would settle over my heart; and her smile would have less sweetness than usual, and my illness would seem to be returning, while Allenham's inquiries about my health would only make me feel more stricken and dismal.

Yet my recovery must have proceeded moderately well, for soon there came a day when I was able to hold brief conversations. And then, for the first time, I learned of some of the things that had happened during the past weeks.

"Thank God, Rodney, you will soon be well!" Ada said to me one day when I was beginning to take an interest again in the world, and the returning strength of convalescence seemed to make life once more worth while. "In the beginning, I am afraid, we were not able to give you all the attention you needed. And there

were times when we feared—yes, now that the danger is past, I may tell you—we actually feared the worst."

I said not a word, but smiled, and waited for her to continue.

"There were so many of us ill all at once," she resumed. "Captain Knowlson and his whole crew! And three of the rescuers, besides yourself. It is lucky we were able to save so many."

"So many?" I muttered. "But didn't you—didn't you save them all?"

She shook her head sadly. "No. All except two."

My eyes, as I surveyed her gloomily, must have asked, "What two?" for she hastened to explain, "Poor Philip Andrews—you knew him, one of the crew—was so near drowning that he didn't last out the day. And Peter McFane, who helped out in the rescue work, died a few days later of pneumonia."

"Poor devils!" I groaned, not knowing what else to say. And Ada, with a rueful smile, went on to explain: "Some of the others are still in bed, but, thank goodness, they're all getting better. Dr. Straub says he was never in all his life so overworked. You don't know what a relief it is now that most of you are better."

And she sighed wearily, and I observed for the first time just how worn and worried was the look of those lovely cheeks and once vivacious eyes.

"You don't know what a relief it was to me to find you here, Ada," I said. "How wonderfully good of you——"

"Good—not at all!" she cut me short. "It was no more that I was doing for everyone. Being the only white woman in camp, I just naturally had to volunteer as nurse. That's all there is to it."

But her cheeks, despite herself, were suffused with a faint blush. And, with a wild leaping of the heart, I perceived that there were things she had left unsaid.

I had no choice, however, but to let her change the subject. And, by way of variety, I began to ply her with many questions that had been troubling me. Now that the thought of *The Pathfinder* was coming to my mind once more, I remember how desperate was the plight of us all, and sought greedily for information.

"Any possibility of salvaging the dirigible?" I asked, although, even while the words passed my lips, I knew that the vessel was hopelessly wrecked.

"No. The sea has torn it to pieces," she stated, with solemn decisiveness.

"Then how are we ever to get back to civilization?" was naturally my next question.

"God only knows!"

"Can't we radio in for help?" I demanded.

But a paralyzing recollection had answered me even before I heard Ada's reply. In order that the airship might not be without means of signalling, and that, at the same time, we might avoid duplication of cargo, *The Pathfinder* had carried the expedition's one wireless outfit!

"We are without radio just now," returned Ada, confirming my fears. "But Stephen promises to try to build a set just as soon as he finds time."

"And meanwhile we cannot get into touch with the world!" I exclaimed. "No one knows where we are, and there is no chance of a rescuing expedition!"

"No, not until next summer, at least. And by that time Stephen expects to have a new radio working. Just now he has almost more than one man can do to supervise the other work."

"What other work?"

Ada stared at me as if not comprehending. "Why, naturally, the work we came here to accomplish."

"And so he still intends to reclaim the island?" I gasped, for I had assumed that the death of *The Pathfinder* meant the end of all our hopes.

"Of course. Why not? Luckily, most of his tools and scientific materials had been landed before the disaster. There is no reason why we should not succeed."

"Yes, but how about the supplies we lost? Weren't they essential?"

"All that we lost of importance were a few hundred cases of provisions. Some of these were later salvaged, but most of them had been spoiled by the salt water. The worst that can happen is that we'll go on half rations for the last part of the winter. However, if we're lucky, we may make up for our losses by hunting seals and polar bears. So, at least, I heard Mr. Norwood saying.

"Well, that's better than nothing!" I muttered, although the prospect of a diet of bear meat and blubber did not excite me.

Now that I was well enough for occasional conversations, I received calls from every member of the party who was not also in his bed. Among these I particularly remember the visits of Rathbone, who had altered strikingly in the few weeks since I had last seen him. Least of all the changes was the fact that a dense, scrubby beard was covering his lean chin and cheeks; there was a deeper transformation, as was manifested in the worried creasing of his brow and in a certain sad, almost haunted look about his eyes, no less than in a new nervousness and impatience about his movements, as of a man harried by a thousand concerns. He did not have to tell me how profoundly troubled he was, nor was I far from suspecting the reason; yet when I questioned him he would only nod mournfully, and say: "Wait till you get well, Rodney—then we will discuss all these things. Meanwhile your one duty is not to bother your head about anything, and to recover as fast as you can."

But it would hardly have been possible for me "not to bother my head about anything"—I was looking forward anxiously to the day when I might again wander abroad and discover what was happening in camp.

THERE was another visitor of whom I have sharp recollections from those days of convalescence—a visitor who interested me less for his own sake than for the information which he brought me. This was the chief engineer, McDougal. Although he had touched elbows with death in the frigid waters, McDougal had recovered more speedily than I had, and looked fairly healthy, although somewhat pale and a little grave of demeanor when every now and then he took his place on the chair beside my cot.

From him it was that I learned the facts concerning much that had puzzled me. "Just what did happen to *The Pathfinder* on that last terrible flight?" I asked him one day, as he idled in the lamplit dinginess of my room. And he looked sober indeed, and there was a drawn, rueful expression about his face as he heard my words, but it was a moment before he attempted to reply. "We can never know positively. But we all have a pretty keen suspicion."

"What is that?"

He sat regarding me gloomily, and slowly responded, "You remember the damaged compartments? The dents in our hull after our first flight to Desolation Isle?"

"I certainly do remember. What about them?"

"They were no doubt the cause. Rathbone and Knowlson and I were all wrong, and Norwood and you were right—the compartments must have sprung leaks, and air was filling several of the vacuums."

"In that case," I objected, "how is it that you were able to make so many flights?"

"The explanation is simple. *The Pathfinder* was equipped with extremely powerful engines, and the pres-

ence of air in two or three compartments out of more than a hundred would not necessarily be fatal. The fault was that we did not repair the damage before it had spread."

"Spread? How could it spread?"

"It could not help spreading. The partitions between the compartments were purposely made very thin and light; hence they could not hold out indefinitely against the atmospheric pressure of fifteen pounds to the square inch. Each one probably remained intact for a few days, then gave way at some point possibly of the size of a pin-head. Thus, in the course of a month, partition after partition must have been punctured, and compartment after compartment filled with air. Yet, all in all, it is not surprising that we did not discover anything, for the intake of air at first was so exceedingly slow that it is a wonder that even you and Norwood heard it."

"When did you first notice that something was wrong?"

"On our last flight to Nome. Then we observed that the stern of the vessel was sagging just a little, as a result of which we could not make quite the scheduled speed. We debated the subject a bit, I remember, but most of us thought the trouble was with the engines, which were gone over very carefully as soon as we reached Nome. Unluckily, we did find one or two minor things out of gear, which put us off the track; having repaired these faults, we thought we had ended the danger. You can imagine our surprise then, when after starting on the return trip, we found the damage even worse than before. Our stern was now sagging much more decidedly—and we couldn't come within twenty-five miles an hour of our established speed. One or two of us, even then, were for putting back to Nome, but Knowlson couldn't see what that would accomplish. And so we kept steadily on our way. And good luck at first seemed to be with us; the real trouble didn't develop until we were six hundred miles out from Nome and midway across the Arctic Ocean. Then we struck a perfect demon of a gale and, just at the time when we needed all our reserve energies, one of our engines sputtered out and went on a permanent strike, and we began to lunge and jerk from side to side in a way sufficient to make even an old tar seasick. Of course, with five of our six engines working, we would ordinarily have been able to laugh at any wind, but this was not an ordinary occasion, for the weight of the air-filled compartments was holding us back and threatening to throw our stern into the sea. It was impossible to maintain an even course: in order to hold the stern up, we had to keep pointing the prow downward, a position it would not maintain without danger of hitting the waves—so that, considering the trouncing we got from the gale, our movements were like those of a small boat on a choppy sea."

"How on earth did you manage to reach Desolation Isle at all?" I asked, shuddering at the thought of that dread flight.

McDougal shook his head doubtfully. "I really cannot say. It was partly luck, and partly the maneuvering of Captain Knowlson. There were a hundred times when I thought we were about to find our last resting-place. As we flew on and on, it was harder and harder to keep from tumbling into the water; but always, at the last moment, some unexpected spurt of power would save us. By the time we approached the island, we were at the last gasp; and when we slowed down a little—as was absolutely necessary before landing—our speed was not great enough to sustain us, and the result was our sudden fall."

A moment's silence followed this recital, and then, as McDougal rose to leave, I asked, "By the way, just what was it that happened after that fall? You must have had a moment's leeway. Was there no chance at all to escape from the dirigible?"

"None!" stated the chief engineer, decisively. "We were trapped like rats. For my own part, I was knocked violently to the deck by the shock of landing, and I was so bruised and shaken up that it must have been several seconds before I was quite certain I was still alive. My first clear remembrance is of climbing to my feet and finding that there was water knee-deep all about me, while such torrents were pouring in through the broken ports that it wasn't a minute before I had to save myself by swimming. There wasn't any possibility of making one's way out against those powerful cataracts; I simply clutched, by blind instinct, at the nearest floating object, and the next I knew the ports were all under water, and there was barely breathing space between me and the ceiling. . . . It seemed a long while later when I heard you fumbling around outside, and tried to call to you. But by that time I was nearly frozen, and I hardly knew whether my lips would work. I think I must have lost consciousness; almost the next I remember is that I was outside, with four or five of you bending over me, one putting a whiskey flask to my lips, and others busy rubbing my limbs, which seemed numb as a board."

"God preserve you from any more such experiences!" said I, and McDougal fervently echoed my sentiments. Little did either of us suspect that, before our days on Desolation Isle were done, we were all to undergo even more terrifying adventures.

CHAPTER IX

The Ice-Gods Awaken

LONG before I was able to leave my bed, I was conscious of a change in the world about me. I did not have to venture out-of-doors to understand that tremendous transformations were brewing, and that a new season was upon us. The months of uninterrupted daylight were over; the months of unlifting night were near at hand; each day I was aware of increasingly long spells of darkness, until at length the rays of the sun filtered in to me only in gray twilight spells, which lasted for a few hours, and were gone. And meanwhile, though I knew that every precaution was taken to keep me warm, I would feel chilly airs creeping in, so that I would shiver beneath my blankets, and, whenever the windows or door stood open, I would hear the gale go howling by outside, with a continuous melancholy wailing more long-drawn and savage than anything I had ever heard before. At the same time, I saw that most of my callers, discarding their civilized costumes, were now robed in furs; while sometimes, when my drinking water was brought to me, it would not be in a pitcher as before, but in the form of chunks of ice, which had to be melted in the warmth of the room.

At first I noted with regret how primitive our domestic conveniences remained: a kerosene lamp for light, an oil stove for heat. "But all this will be improved before long," Ada would assure me, confidently. "Stephen is now working on something better." And, indeed, there came a day when I saw the men laying wires in my room, and fitting up an electric heater and electric bulbs, until lo and behold! the magic of civilization was about me, and I basked in a fireless warmth, and directed my movements by a fireless light.

"At last Rathbone has got the electric plant working!" I heard jubilant voices exclaiming. But no further explanation was vouchsafed me just then, though I was assured that I should see all when well.

And oh, how eagerly I longed now to be up and active again! And how happy I was when the day came when I could leave my bed, and, swathed in blankets, was permitted to sit reading for two or three hours at a time! "You are getting along very nicely, young man," Dr. Straub informed me. "With good luck, you should be about well in another week or two. However, you must take care. You must remain indoors till you are past all danger."

But would I heed this sensible advice? Not at all! I now felt thoroughly recovered, now felt strong again as normal; and in the false security and impatience which this feeling aroused, I concluded that the doctor was one of the dull, over-conscientious type, and was led to commit an act which I was often to regret. For, when no one was around, I quietly dressed, and prepared to venture out-of-doors.

One precaution, however, I did take: profiting from the example of my comrades, I adjusted the fur clothing that had been stored for me in a little chest in a corner of the room. I found the garments rather bulky, and distressingly warm at first, and I must have looked like an Eskimo by the time I was fully attired: my coat was of caribou skin; my trousers, and also my broad ear-protecting cap, were of the heavy white skin of the polar bear; my stockings were of the hide of Arctic rabbits, and only my huge army shoes—later to be exchanged for snowshoes—bore evidence of my civilized descent.

Thus fortified against whatever the weather gods might bring, I slipped silently from my room, passed the outer door undetected, and emerged into that world which I had not seen for nearly two months.

Or should I say that it was a world I had never seen before at all? For this would be closer to the truth. I had expected changes, had known that there would be changes, but I was quite unprepared for the reality. Once out of the house, I stopped short with a gasp, amazed at the strange, grim, terrifying aspect of the universe. Truly, the Arctic winter had set in! Or perhaps it was not quite winter yet, since some vestige of day remained: a dim twilight without a sun, which gave all things a weird, haunted appearance; a gray twilight, verging toward the silvery at the southern horizon, where an eerie illumination as of late sunset betokened the presence of the hidden orb of day. How hard to believe that that feeble radiance, which soon we were to look back upon enviously, was the luster of noon! Yet no cloud or mist had screened out the life-giving rays; the heavens were clear, and here and there a star, shining from amid the obscurity, twinkled down on a fantastic, ghostly world.

Never had I looked upon a wilder scene. White was the predominant color, or, rather, white and gray, since the two mingled everywhere in the half-light; snow-covered hills and tundra rolled behind me; while Devil's Peak and its tributary heights were one frosty mass, except for an occasional black escarpment too precipitous to permit an accumulation of snow. Even as I stepped from the house, my feet crunched against an ice-caked boulder, on which I almost slipped; and ice stretched from our doorway to the very roof of the sea-cliffs, which were bearded with icicles and presented a fairy-like appearance with their long pointed fringes varied by frozen miniature cataracts. Glancing toward the stream from which we drew our drinking water, I observed a solid river of ice; while the sea, likewise, had solidified, and presented an irregular, spectral white appearance, here and there thrown up into a wilderness of broken ridges and hummocks, here and there stretching flat and featureless, and at wide intervals varied by a dark patch of open water.

NEVER before had I realized quite how well Desolation Isle deserved its name. And never had I felt quite so forlorn and helpless. Now, as at no time before, I understood how totally we were cut off from the world of men, how cruelly left to our own resources, how mercilessly in the power of the bleak, inhospitable forces of ice and tempest and darkness. With a vividness that was like a pang, thoughts of my warm, comfortable home in the south came suddenly to me; I saw once more the geraniums in the window-pots, looked out across the inviting, agreeably lighted streets, and a terrifying thought stabbed me as to when I should see those remembered places again. Why had I entrusted myself to this savage northland? Why had any of us ventured into these pitiless wastes? Could we not have recalled the fate of all those who had gone forth never to return? Could we not know that every breath of these Polar winds was charged with menace to the fragile life of man?

But only for a moment such depressing thoughts assailed me. Taking a deep breath of the clean, invigorating air, I seemed to feel new life pulsing through my veins, and started resolutely away from the settlement, at first not sure what direction to follow, yet borne as by some irresistible impulse toward the wreck of *The Pathfinder*. Thanks to my heavy garments, I did not feel cold, and though my face smarted from contact with the chill winds, and my limbs felt stiff and shaky and I soon began to notice how weak I was, I would not pause until I had trudged some hundreds of yards through the thick, hard snow and had sighted the remains of our dirigible.

That view was not calculated to cheer me. At first I gazed in vain across the edge of the cliff, able to see nothing at all, although sure that I was looking in the right place. But by degrees, from amid broken, jagged masses of ice and pointed reefs, I made out several thin projecting metallic sheets and rods, so bent and twisted and so encrusted with ice that they seemed a natural part of the surrounding wilderness. This, then, was all that was left of our vessel!

On the headland above the wreck, however, I was able to distinguish a great ice-coated mass, which, despite its torn and fantastic appearance, did not at all resemble the handiwork of nature. As I drew near, it took on the dreary appearance of a dumping heap, or of some great depository of waste iron; and, upon reaching its outskirts, I observed huge strips and piles of broken metal heaped together in a wild, haphazard fashion, some of it with a familiar silvery appearance, some of it already badly rusted. On one of the first sheets which I examined, there appeared the half obliterated traces of black painted letters, three of which, with considerable difficulty, I managed to decipher: "ATH."

And so this, as I had surmised, was part of the ruins of *The Pathfinder*, which Rathbone had salvaged in the hope that it might prove of future use!

By the time that I had completed my investigations, the faint silvery glow on the southern horizon had vanished, and the meager twilight was commencing to fade. And so, fearful of being lost at night amid this icy desolation, I began to retrace my steps. As I did so, a curious spectacle met my eyes: a long line of lights, reaching eastward along the road to the power-plant! And, at that sight, a warm, heartening feeling awakened within me, a new sense of well being and security—already the rod of science was putting at bay the immemorial terrors of the Arctic!

My exultation, however, was short-lived. Even before I had regained the house, a new fear began to lay hold of me. All at once, I recalled Dr. Straub's warning, and, all at once, I wished that I had heeded his advice.

For a dull, oppressive pain began to manifest itself about my heart, and my breath, as I approached the settlement, began to come in a quick, gasping way that filled me with alarm. Had I overtaxed my strength?

Evidently I had, and the consequences of that overdraft upon the bank of nature were to be serious. As I staggered back to the cottage and then hastily disrobed and made my way into bed, I felt by turns hot and freezing, while the pain had not left my chest, and I continued to gasp for breath. Dr. Straub, arriving half an hour later to pay his daily call, looked surprised and solemn as he glanced at me, and was unusually long and severe about his examination. "I can't make out what's happened," I heard him remarking from the next room. And I thought I made out something about "relapse" and "raging fever"; and then, too sick and too weary to listen more, I settled down to a fitful sleep, troubled by dreams in which I was alternately scorched and condemned to shiver on an ice-cake drifting down the midnight seas.

CHAPTER X

The Power-Plant and the Pit

THAT relapse, however, did not put an end to my career. Fate had reserved me for new trials and misadventures; after another week or two, thanks to careful attention, I had recovered sufficiently to be able to leave my bed again. And in due time, after a few more days, I received official permission to venture abroad. To all appearances, I was now completely cured—yet my rashness had left me with a heritage that was destined to stay with me and cause me much trouble. I do not know whether my lungs were still affected, or whether I had sustained some slight impairment of the heart; but at times, when I exercised greatly, that dull oppressive pain in my left side would return, and with it a tendency for my breath to come by spurts and gasps. Thus had I paid my first toll to the Arctic!

But no thought of this affliction disturbed me when at last, without eluding anyone or attempting to deceive anyone, I prepared to visit the outside world again. That occasion stamped itself impressively upon my mind, not only because of my joy in leaving the sick-room, but because I was escorted by the most delightful of companions. It was Ada herself who accompanied me; Ada who let me take her arm, and guided me slowly and gently, like a nurse attending a sick patient. In her eyes, as she smiled up at me, was a soft, kindly light—kindled, I was sure, by pity at my weakened condition—but was not even this crumb something to be thankful for? At least, I had her companionship—and a gay, vivacious, charming companion she proved to be as she stepped slowly with me across the snowy waste, pointing out a thousand things, explaining a thousand things, and acting generally in as care-free, happy a manner as though we were not exiled in one of the dreariest regions on earth.

This walk with her proved to be almost as much of a revelation to me as my previous venture out-of-doors. Again a startling change occurred. Although my watch indicated that it was but two in the afternoon, the stars glittered brilliantly from the frosty skies, with that signpost of mariners, the North Star, almost directly overhead; while from time to time a weird, unbelievable, ghostly phenomenon flickered in the transformed heavens. Never had I observed any such sight as those thin, unreal greenish streamers, which wavered in pale spectral wreaths and curtains across the sky, impalpable, intangible, yet the most arresting things in all this dream-strange wilderness. Certainly, if nature required any culminating touch of fantasy for the fantastic northern night, she could not have hit upon anything more masterly than the incredible witch-fire of the aurora.

But the mood of awe and wonder created by this spectacle was interrupted with the suddenness of a dynamite discharge. With no warning whatever, a tremendous booming, as of a remote explosion, dinned upon my ears, to be followed instantly by another sound—sharp, prolonged and grinding—reminding me of the wrenching and tearing of great masses of steel.

"Good heaven!" I exclaimed, stopping suddenly short. "What has happened?" And I had horrifying visions of Rathbone's power-plant blasted to fragments.

But my companion, to my surprise, smiled at me serenely, and seemed not at all alarmed. "It is only the ice," she explained. "The weather has been warmer these last few days, and the ice has been breaking up. With your windows all closed, you could not hear the racket, for Stephen has made our houses sound-proof."

A strange mixture of the civilized and the primitive everywhere confronted us. Strung above us against a low bluff at intervals of about fifty feet, were the electric lights that showed us our way; while passing us, when we were half a mile from the settlement, we observed an Eskimo dog-team, seven great beasts straining in harness to pull the heavily laden sledge, with the driver striding behind, lash in hand. "Why, hello, Norwood!" I exclaimed, observing my old friend in this unexpected rôle; and Norwood, with a grin and a flick of the whip, returned my greeting, and passed on into the night.

"We still have to use those slow-going methods," Ada explained, with a smile. "But Stephen is planning a small electric railroad, which he will build whenever his other occupations leave him the time."

It was not many minutes before we came in sight of a snow-covered building which I recognized as the power-house. Extending from it along the icy sea, I could distinguish a series of metallic tubes and rods, barely visible for a few hundred yards by the dim electric illumination, and then vanishing into the shadows of the ice-pack. These, I knew, drove the electric generators, whose workings Rathbone had already explained to me.

"Maybe we will find Stephen in the power-house," suggested Ada, as we approached the scene of operations. "He has his offices there, but is almost as often in the pit."

"The pit?" I echoed, without comprehension.

"Yes. That's what we call the tunnel he's boring. You know, the tunnel that will make Desolation Isle green and fruitful."

These words were spoken in a tone of absolute assurance; yet I must confess that, as I gazed at the bleak, dim waste of wintry sea and scarcely less wintry land, I was less sanguine than of old as to the possibilities of reclaiming the Arctic.

Ada, however, did not seem to notice my doubts, and she chatted hopefully concerning our prospects while together we approached the building. As we entered, an oily smell attacked our nostrils, and the whirring and rumbling of great machines came to our ears. I caught a glimpse of a room in which the dynamos stood in a long line, connecting with an intricacy of wheels, wires, rotating chains, and fast-moving levers. But, not taking time for a close inspection, we turned down the aisle, toward a door placarded with the words, "S. RATHBONE, OFFICE."

As we were about to knock, a man hastily emerged, his lips twisted into a nasty curl, a sullen look in his two staring eyes. "Oh, you, Allen!" exclaimed Ada, disturbed at the sight of her fiancé; while he, pausing for the fraction of a second, answered abruptly and

without any trace of his customary polish, and then with a scowl strode through the hall and out of the building, slamming the door behind him.

"What on earth can be getting into him?" muttered Ada, a pallor coming into her face, while the two of us slipped into the office.

Before us was my old friend, seated at his desk, smiling! "Mighty glad to see you up again, Rodney!" he enthused, springing from his chair and taking my hand in a hearty grip. "Well! You're looking pretty much your old self once more!"

But I in my turn, as I glanced at him, thought he did not look at all his old self. The lines of care and worry were daily becoming more conspicuous on his face, and at the same time the jerkiness and nervousness of his movements were growing more apparent. And the very appearance of his room seemed an index to his state of mind. All about his desk, which was a light affair of unpainted pine boards, the papers were scattered in confusion, some of them crowded with hastily jotted notes, some filled with figures and chemical formulas; while interspersed among them were all manner of notebooks and mechanical drawings and blueprints, one or two of which had escaped from the general litter and slipped half-way to the floor.

AFTER we had removed our fur coats and taken seats in chairs which our host drew up for us, Ada launched at once into a frontal attack. "We passed Allen just now at the door. He seemed to be acting rather peculiarly——"

"No more peculiarly than all along," interrupted Rathbone, a trace of indignation in his keen gray eyes. "He and I have just been coming to an understanding—that is all."

"An understanding?" repeated Ada, glancing inquiringly at her brother.

Rathbone hesitated a second, then proceeded, in a severe, determined voice. "I hadn't meant to trouble you about these matters, Ada; but since you've seen with your own eyes that something is wrong, I might as well let you know the facts, before you get Allenham's distorted version. You, too, Rodney," he urged, with a quick gesture, as I rose to leave. "I don't mind your hearing this, too. The situation is very simply stated: Allenham has been a slacker."

"Slacker? But I can't believe it! You're sure you're not mistaken, Stephen?" murmured Ada, in the tones of one profoundly wounded.

"Couldn't possibly be mistaken. I've given him the benefit of every doubt."

With a grim smile, Rathbone turned to me, and continued: "You see, it's this way, Rodney. If we are to succeed on this expedition, every man must do his share. I have assigned each person to a particular task, which I expect him to perform—out of a sense of honor, if he has one; but, if not, by compulsion. I try not to give anyone too much work, nor any work he is not able to accomplish; but, as the leader of this expedition, I must exert my authority for the sake of us all. Above all, I expect and intend to be obeyed. And that is where I came into conflict with Allenham. Being the hardest man in the whole camp to fit into place, he thinks we should make an exception of him. You see, he couldn't do either scientific work or hard manual labor—and there was very little left which he could do. It was only after much deliberation, as you know, Ada, that I found a post I thought he could occupy, and made him elevator man in the pit. He would be warm down there, and not overworked—and besides, he admitted there was nothing else that he preferred. But did he try to make good? All I know is that for a few days he did his work in a half-hearted sort of way, and then quit without notice. So this afternoon I summoned him, and laid down the law by which I mean to run this camp."

"What is that, Stephen?" asked Ada, still looking pale and distressed.

"It is a very simple law," Rathbone stated, bringing his clenched fist heavily down upon the desk. "But it has often been tried before—and, what is more, it usually succeeds. He who will not work shall not eat! That is all there is to it, and I do not believe anything could be more fair. No provisions can be passed out without my order, and Allenham will not have another meal until he does something to deserve it. I venture to predict that he will be back at his elevator before the day is over."

"But what—what if he should go on a hunger strike?" suggested Ada, in manifest alarm.

"Allenham go on a hunger strike?" Rathbone laughed, disdainfully. "Allenham show such spunk? No, Ada, I think you need have no fear. He is too much in the habit of being well fed."

And then, dismissing his sister's protest with a quick jerk of his arm, which sent two or three of his papers rustling to the floor, Rathbone turned to me, to explain: "You may be surprised to see me grown so despotic, Rodney. But in certain cases, I assure you, it is necessary to rule with a strong hand. I feel tottering beneath my responsibilities; I can't help realizing that more than forty human lives are in my keeping, as well as a project that may revolutionize human existence itself. The stakes are too great to permit a divided leadership—for am I not like the captain of an endangered ship, who owes it to all to exact the best that is in everyone? Otherwise, there can be only one result—ruin!"

"I believe you're right, Steve," said I, for I knew that Rathbone had never been of a domineering nature, and that his attitude of command was summoned forth only by dire necessity.

"I know I'm right!" insisted Rathbone. And then, waving the whole subject suddenly aside, he inquired, "Well, Rodney, I suppose you'd like to see what we've been doing while you were sick? We haven't been wasting our time, as you shall discover; we've been going ahead just as if we hadn't lost *The Pathfinder*. Suppose we go over together and take a look at the pit?"

"Nothing I'd like better," I assented, and Rathbone reached hastily for his fur coat, which hung from a hook on the wall.

After we had all adjusted our furs, he took my arm, and, accompanied still by Ada, we ventured once more into the blustery darkness of the night.

CHAPTER XI

A Masterly Invention

FOR a few hundred yards we proceeded along an electrically lighted roadway, trudging at a steady pace through the hard, firm snow. And in a surprisingly short time we had reached the scene of the excavations. I was chattering so merrily with my friends that I had forgotten all about our destination when, mounting a little rise in the land, we were confronted by a curious sight. In an artificially illuminated space just ahead, stood an enormous funnel-shaped metallic mass. Perhaps twenty feet across at the base of double that width at the summit, it rose abruptly to a height of fifty feet; and scattered haphazard beneath it were four or five little huts, with masses of pipes and wires piled in disorder on all sides. By the yellowish artificial illumination, I could distin-

In an artificially illuminated space, just ahead, stood an enormous funnel-shaped metallic mass. So surprised was I at this spectacle that at first it did not occur to me that this was "the pit"

guish the fur-encased shapes of several men, while every few seconds the door of one of the huts would swing open, revealing a brightly lighted interior where great wheels were turning.

So surprised was I at this spectacle that at first it did not occur to me that this was "the pit" of which my friends had spoken. But Rathbone quickly announced that fact. "The excavations are proceeding rapidly, as you shall see," he explained. "There is one of the vents for waste products." And he pointed to a little ditch, in which a thick, oily-looking liquid was flowing seaward from an opening in the great funnel.

When we reached the huts, I noticed that several of the men paused to nod to Rathbone deferentially, with something of that distant respect which a private accords to his lieutenant. Thus already was my friend establishing his authority! Rathbone replied in a manner that seemed to me to be a little tinged with formality; then, still escorting me by the arm, passed on into the largest of the huts and down a short stairway to a well-lighted underground room.

"The elevator should be here in just a minute," declared Rathbone, while pressing an electric push button above a narrow door. "The elevator shaft, a separate tube, already reaches nearly to the bottom of the pit. It has been in almost constant use, and, during Allen-

ham's absence as operator, I have had to appoint a man called Hawkins—who could make himself more valuable in other ways."

Even as Rathbone uttered these words, we heard the clattering of the approaching elevator, and the door was flung open with a bang. And before us stood not Hawkins but the flushed and shame-faced Allen Allenham!

He gaped involuntarily at the sight of us, and I thought that he eyed Rathbone with a glint of hatred in his ox-like yes.

"Ah! You, Allenham!" exclaimed our leader, heartily, as we stepped into the car. "Glad to see you back on the job!"

But Allenham only muttered incoherently, and I noticed that the vindictive glitter in his eyes had not vanished.

"All the way down!" directed Rathbone; whereupon, with a jerk, the door slammed behind us, and we were launched into an abrupt descent, which ended a few seconds later with an equally abrupt halt.

As the door was flung open and we left the car, Ada turned to me with a smiling "You'll excuse me, won't you, Rodney? I'll see you when you come back. I have something to say now to Allen."

Of course I tried to nod a gracious assent, although a jealous, irrational pang shot through me.

But I forgot my chagrin the next moment, when Rathbone was introducing me to the wonders of the pit. Truly, he had not been wasting his time! It seemed incredible that he had accomplished so much; I would not have believed it possible for ten crews of men such as ours to advance so far in ten times as many weeks. Stepping out upon the elevator platform and following Rathbone through a low, narrow gallery, I found myself on a little wooden balcony projecting into a shaft of imposing dimensions. Cut perpendicularly and with almost perfect regularity through the solid rock, it was about twenty feet across and of a length hard to estimate; beneath us, it descended into unknown depths; while above us at a tremendous height the stars glittered through the black circle of the opening.

"We are now at the nine-hundred-foot level," stated Rathbone. "We have cut down to a total depth of one thousand and twenty-six feet, but that is being increased daily. Perhaps you would like a clearer view."

Pressing a hidden button, he flooded the lower reaches of the pit with light. All at once I could see how pipes as thick as my arm had been clamped to the rocky walls; how wires and rope ladders had been strung all along the sides of the excavation, reaching from wooden balcony to wooden balcony; and how beneath us, at a distance of a hundred feet, a huge electric pump stood on the lowest balcony, while still further down, at the base of the pit, was a viscid, oily-looking liquid such as I had already observed in the ditch above.

"Good Lord, Steve!" I ejaculated, as I gaped at these unbelievable sights. "How fast you have worked! How under the sun——"

He cut me short with a hasty wave of the hand. "That is one of my little surprises," he announced, smiling in a pleased, twinkling way. "Certainly you didn't think that I would tackle this task without being fully prepared? I have adopted a new system of excavating.

"Even the most advanced of former means of boring—steam dredges, pneumatic rock drills, dynamite, and the like—are so slow that it would take us years to excavate through solid rock to the necessary depth. I realized that from the first, and would not have undertaken this expedition if I had not already had at my disposal a quicker and more efficient method. Can you guess what that is?"

"How can I guess?" said I, shrugging hopelessly. "I only know that your accomplishments thus far have been phenomenal."

For a moment Rathbone stood thoughtfully stroking his bristly recent growth of beard. "I can explain it all in one phrase," he resumed. "I have discovered a universal solvent."

"Universal solvent?" I gasped. "What may that be?"

"Just what the words imply. A substance capable of dissolving all other substances."

I GAZED at my friend in growing astonishment. "Capable of dissolving all other substances? But such a thing has never been discovered before!"

"No, it has not," Rathbone returned, with a smile. "But neither had radium been discovered—before Madame Curie."

"Then you mean," I demanded, amazed at the implied comparison, "that you have found a new substance as remarkable as radium?"

"That sounds like a very boastful claim," he replied, still smiling. "Yet it is exactly what I mean. Tri-nitro-fluoric acid—which is the name I have given to the new compound—is the most powerful chemical reagent ever obtained. Not that I want you to imagine that it has anything like the inexhaustible energy of radium, nor the explosive qualities of certain nitrogen compounds; but it has other and even more valuable qualities. And the first of these is its extraordinary chemical activity—its power to combine with every known substance, probably with the exception only of the inert gases. I have yet to discover any solid or fluid that it will not attack—and the astonishing thing is that in almost every case the product of the union is a thick, oily liquid like that which you see down there at the bottom of the pit."

"If that be true," I exclaimed, overcome with wonder, "you have made a miraculous discovery! How under heaven did you ever hit upon this acid?"

"I cannot take much credit," admitted Rathbone, with a deprecatory shrug. "Like many another invention, it was born of an accident. I had been experimenting for years to find, not a universal solvent but a more powerful one than any hitherto known. At last, after alternate fits of hope and despair and much sweating and drudgery, I discovered a new fluorine compound which seemed almost to meet the requirements. It was one of the most corrosive acids ever generated, as I can testify from the sores that developed on my hands and face merely from contact with the vapors it exhaled. There wasn't any metal that it wouldn't dissolve as easily as water dissolves sugar, and many of the non-metallic substances would fade away like mist before its attacks. I was well content with it, I can assure you, and wasn't looking for any improvement. And I hardly know what it was one day that gave me the idea of mixing it with a semi-explosive nitrogen compound I had recently originated. Probably it was merely the wild lust for experimentation, for it was really a crazy thing to do, and I risked being blown to eternity. But the result, fortunately, was not so violent as it might have been. As soon as I had poured the two substances together, I noticed a furious bubbling reaction, accompanied by a peculiar acid odor, and, after a few seconds, a clear yellow liquid formed in the bottom of the glass container.

"But now began the amazing event. Even as I watched, the glass bottle seemed to melt away! Within a few seconds, all that was left was a viscid fluid, which rapidly gnawed its way through the zinc lining of the laboratory table, then through the woodwork beneath, and then on through the stone floor itself. Try to picture my surprise. Here was a chemical that dissolved

one of the most stable of all substances! I remembered, of course, that glass is also attacked by another fluorine compound, hydrofluoric acid, which is made by treating a fluorid with sulphuric acid—but in that case the action is not nearly so rapid. It was clear to me at once that I had the most powerful reagent ever isolated! And you may be sure that I was half wild to test my find, and conducted other experiments immediately. The results were incredible! I could find nothing at all that was not attacked and liquefied by the new substance!"

Rathbone paused, and stood staring at me with a vaguely triumphant smile. But, noting what struck me as a contradiction in the story, I could not quite echo his enthusiasm. "All that sounds very well, Steve," I said. "But if this tri-nitro-fluoric acid of yours dissolves everything, how do you find a container for it?"

To my surprise, my friend did not seem at all taken aback by this question. "A very good point," he acknowledged, with an amused grin. "But who told you I had found any container?"

I could only gape at him inquiringly. And, after a moment, he proceeded: "No, I have not found a container, and probably will never find any—but that does not greatly matter. The only drawback is that I cannot analyze the new compound and ascertain its precise chemical composition. Its actual uses, however, are unaffected by this disadvantage. For tri-nitro-fluoric acid is the tool that has enabled me to excavate so rapidly."

"I don't see how!" I exclaimed, still very much mystified.

"By the simplest method conceivable. Before coming to Desolation Isle, I manufactured large quantities of the two components of tri-nitro-fluoric acid. These I have transported here on *The Pathfinder* and am now using them extensively. From time to time the two fluids are poured simultaneously in small amounts through the funnel above the pit, with the result that the acid is formed instantly and dissolves all the earth and rock which it touches. As it always eats its way directly downward, I can control it with exactness; and the acid-smelling gases which are the by-products of the reaction are light enough to pass out through the funnel. By means of a system of pipes and electric pumps, the liquid solutions are forced to the surface, and there allowed to flow seaward through the trench you observed. The smaller tunnel to the elevator, needless to say, is bored in the same manner. All forms of rock—granite, limestone, basalt, quartz—are the same to the acid; hence the excavations have progressed swiftly and easily."

"Even so," I inquired, seeing still another objection, "you must need a prodigious amount of the acid. How do you secure enough for your operations?"

"There is another great advantage of the product," stated Rathbone, with a smile. "A small quantity of it is capable of combining with a large quantity of any other substance, and five pounds, when rightly used, are sufficient to liquefy a quantity of the rock. Our present supply is adequate for the immediate future, and I am planning to renew it in time by means of certain common minerals, which are as abundant here as elsewhere."

Despite the thoroughness of Rathbone's explanations, still other questions shot into my mind, and I had already opened my mouth to put a new doubt into words, when, with an impatient gesture, he restrained me.

"Well, I guess I'd better be getting back to the powerhouse," he decided. "There are a lot of men working up there. No one is at the bottom of the pit just now, for something has gone wrong temporarily with the power generators, cutting down the current. While repairs are being made, I have ordered the workers all above ground."

But at least one of the workers, apparently, was not above ground. No sooner had the last words left my friend's lips than we were startled by a voice from the black recesses above. "Hey, Rathbone! Rathbone! That you down there?"

Looking surprised and a little alarmed, Rathbone made a funnel of his lips, and shouted back, "Yes! Here I am! What is it?"

"Can you come up here?" called back the voice from the invisible. "I'm in Gallery C, near the third balcony. Try to make it soon. I've discovered something!"

"All right! I'll be right up!" yelled Rathbone, his hands beginning to tremble a little, for he had not failed to detect the note of excitement in the voice.

And then to me, in tones meant to be calm, he remarked: "That's Kenworthy up there. He's always browsing around, trying to make discoveries. You'll have to excuse me, Rodney. The elevator will take you up."

And, to my astonishment, Rathbone stepped out upon the wooden platform, reached for one of the rope ladders, and, in something of the manner of a seaman climbing to the crow's-nest of a ship, began to ascend hand over hand, scrambling up the precarious footholds, until he had become but a dim shape crawling along the wall, and then, growing by degrees smaller and smaller, he vanished far up among the shadows of the shaft.

CHAPTER XII

Further Discoveries

IMMEDIATELY after Rathbone's disappearance, I started back through the narrow corridor toward the elevator entrance. The distance was only a few yards, but before raching my goal I had to round a sharp curve in the dimly lighted gallery; and, because of that curve, I obtained some unexpected information.

When within arm's grasp of the turn, I was startled by the sound of voices. The tones were low, but the identity of the speakers was unmistakable. On an impulse I immediately stopped short, and as the first words came to me, I was so interested that I remained as if rooted to the spot. No doubt I should not have lingered there; I realize well enough that I was guilty of eavesdropping—but who would not be sorely tempted if he heard himself discussed by the person whom he most adored?

For that is precisely what happened to me. And it was as if I did not have the power either to go forward or retreat; I stood like one transfixed, while Ada's voice and Allenham's by turns came to me.

"How many times must I tell you," the man was saying, "I don't like your conduct of late. I don't want to see you going around the way you do with that idiot of a Rodney. Remember, you're engaged to me, not to him!"

"I don't see what harm there is in being nice to him!" I heard Ada's voice rising in staunch defense. "And Rodney's not an idiot! He has been so very, very sick, the poor boy!—and that wouldn't have happened, either, if he hadn't done a frightfully brave deed. That's more than you ever did, Allen—and you know it. I didn't see you plunging into the ice-cold water when *The Pathfinder* sank."

"No, but was that my fault?" I heard the weakly mumbled voice of Allenham. "You know I'd gone for a rope to haul the survivors out, and by the time I got to the wreck the rope wasn't needed. I don't have

to tell you that if it had been required, you would have seen——"

"All I did see," interrupted Ada, while I felt like bursting into applause, "is that you were standing high on the beach, not so much as getting your feet wet, and didn't even offer to lend a hand when they carried in those poor, half-dead men."

"But what could I have done?" argued Allenham. "I tried to push forward and do something, but nobody would pay any attention. And then—why, then——" Here there came an embarrassing halt. "Oh, well, what's the use? We can't all be heroes and look for sympathy by making invalids of ourselves."

"I think that's nasty of you!" snapped Ada, angrily.

"Well, at least there's some excuse for being nasty!" was her lover's retort. "You're not fair, Ada. You condemn me without even giving me a trial. Just because this Rodney of yours happened to be nearer the wreck is no reason to think I wouldn't have done as much if I could. Why, if you'll only wait till I get another chance——"

"Such chances come only once in a lifetime!" sighed the girl.

Allenham uttered something mumbled and broken, which I could not quite catch. Then followed a moment's silence, during which, thinking the discussion about over, I contemplated stepping forward and making my presence known.

But all at once I heard Allenham's voice raised in gentle, persuasive tones. "Why must we argue about all these things that don't matter, Ada? There is so much that really does matter."

"I don't know what you mean," she replied, in a subdued manner.

"I'm sure you do know. Certainly, you haven't forgotten what I've been saying all along. Why must you always keep me in suspense, Ada? Why put months and years between the two of us, and waste the better part of our lives?"

"Oh, Allen, we've threshed all that out before!" was the annoyed response.

"It's my right to bring it up again, isn't it? Haven't I shown my loyalty, Ada, by coming out with you to this God-forsaken place? Good heavens, but I have suffered! It's up to you now to make up by keeping your half of the bargain. Why can't you, Ada? Marry me without waiting till we get back home! Captain Knowlson can perform the ceremony, as I've told you before!"

"And as I've told you before," declared Ada, while I listened tensely, fearful lest she be persuaded against her will, "the ceremony shall not be performed till we have left Desolation Isle!"

"God knows if we ever will leave alive!" he muttered. "You don't realize how cruel this waiting is, Ada! You can't realize! Why, it's like being in Purgatory, to love you like this and be kept at arm's length! Sometimes, actually, I get so stirred up I feel like seizing you and carrying you off in cave-man style!"

For answer, the girl's laughter rang out merrily. "You carry me off in cave-man style, Allen? You, Allen Allenham, play the cave-man? No, no; I can't imagine it!"

And her laughter throbbed more mirthfully still, to be stifled suddenly to the accompaniment of a smothered exclamation, the sound of brief scuffling, and a loud, telltale noise, which was followed instantly by the girl's derisive protest. "No, let go, Allen! I am not in a mood for that now! Let go!"

And her objection was so forceful that he yielded at once.

"I came here to talk to you seriously," I heard her continuing, in severe tones. "That was why I remained with you in the elevator. But you still haven't given me a chance."

"I don't know when I've ever talked more seriously!" came his irritated denial.

"No, I suppose you're not in the habit of talking more seriously," she chided. "Well, you'd better try this time. I want to speak to you about this matter with Stephen. You have made me ashamed of you, Allen. You know that if we're to succeed here on this island, each of us must do his part. Stephen is our leader. And, for the sake of us all, what Stephen orders must be obeyed."

"Oh, I'm obeying, all right, am I not?" he grumbled. "But do you think I like running this stupid machine here? Your brother is getting too damned officious, that's what's the matter! What does he imagine I am, anyhow—his servant? Why, I thought I was doing him a favor by coming out here. And what does he do in return? Makes me an elevator man! Can't he remember who I really am? I take it as an insult—and I'm sure anyone else in my position would, too! Do you think I'd be able to lift my head up if people knew? I'm only praying it will never become known!"

"You'd do better to pray we get ahead with our work!" remonstrated Ada. "Why, I imagined that was why you came here in the first place—because you were interested, and wanted to be of some use. And so you might try to help out just a little. Otherwise"—here there came a tense pause, before Ada continued with redoubled energy—"otherwise, Allen, it is possible I will not feel like going through that ceremony you mentioned, either on this island or anywhere else!"

Upon hearing these words, I was ready to cry aloud with joy. It seemed to me that I had now heard enough; I did not wait for Allenham's reply, but, in my delight, I coughed in a forced manner, and then started forward in a breezy, casual way. Of course, I tried to appear surprised when I came across Ada and Allenham standing side by side in the open elevator, and, of course, I gave no sign of observing how flushed and excited their faces were. I merely made some matter-of-fact remark about the pit; then went on to describe how I had last seen Rathbone ascending the rope-ladder in response to Kenworthy's summons; then proceeded to conjecture what sort of discovery it was that Kenworthy had made.

TO ALL this they listened with no marked interest, and Ada replied by explaining how it was that she had been waiting with Allenham in the elevator, which, owing to temporary suspension of activities in the pit, had not been much in demand.

"Want me to take you up?" Allenham inquired of me, by way of his first contribution to the discussion, and it was with every evidence of relief that he pulled the lever and sent us clattering toward the ground level.

He did not appear at all pleased, however, to see Ada accompany me out of the car, and the scowl that darkened his ordinarily placid countenance expressed much that words had left unsaid. "Then I'll see you after work?" he mumbled to his fiancée, more as a question than as an expectation, and, while she nodded a hesitant affirmative, he stood glaring at me.

Silently Ada and I mounted the short flight of stairs together; then, as we came out into the night, she turned to me with an ingratiating smile, and inquired what I thought of the work in the pit.

But before I could reply, there came an interruption. A small door, scarcely noticeable at the base of the funnel above the pit, burst open abruptly, and a man's head appeared, followed instantly by the tall, fur-clad body. And Rathbone, making his panting way up the rope ladder, stood grinning at our side; he was followed

almost instantly by another man whom, in the electric glare, we recognized as the geologist, Kenworthy.

Both men, to judge from their exultant looks and their jerky, hasty movements, were in a state of high excitement. "Oh, this is fine to see you here, folks!" exclaimed Rathbone, as soon as he had sufficiently recovered his breath. "I wanted to speak to you both! You shall be the first to learn of Kenworthy's discovery!"

"Not mine! Yours at least equally!" denied Kenworthy, with a self-deprecatory nod.

"Not at all!" maintained our leader. "Yours in every way! But let's not argue over honors just yet! Here! Look at this!"

And he drew from an inner pocket what appeared to be a little black rock, and handed it eagerly to me.

At first I examined it in perplexity, wondering what madness had overtaken my friend. But comprehension came quickly enough to me. The little black rock had a familiar charred appearance, and gave my hands a sooty stain. "Why, it's coal!" I exclaimed.

"Yes, coal!" Rathbone affirmed, striding back and forth in high glee. "Did you ever hear of such luck? Just what we most need! Kenworthy has struck a thick vein of it!"

And, while I passed the specimen to the eager Ada, Rathbone continued, enthusiastically, "We'll have to start in mining right away. There will be a thousand and one uses for it. We'll build furnaces to smelt iron ore, which is common on this island. And we'll manufacture things without end!"

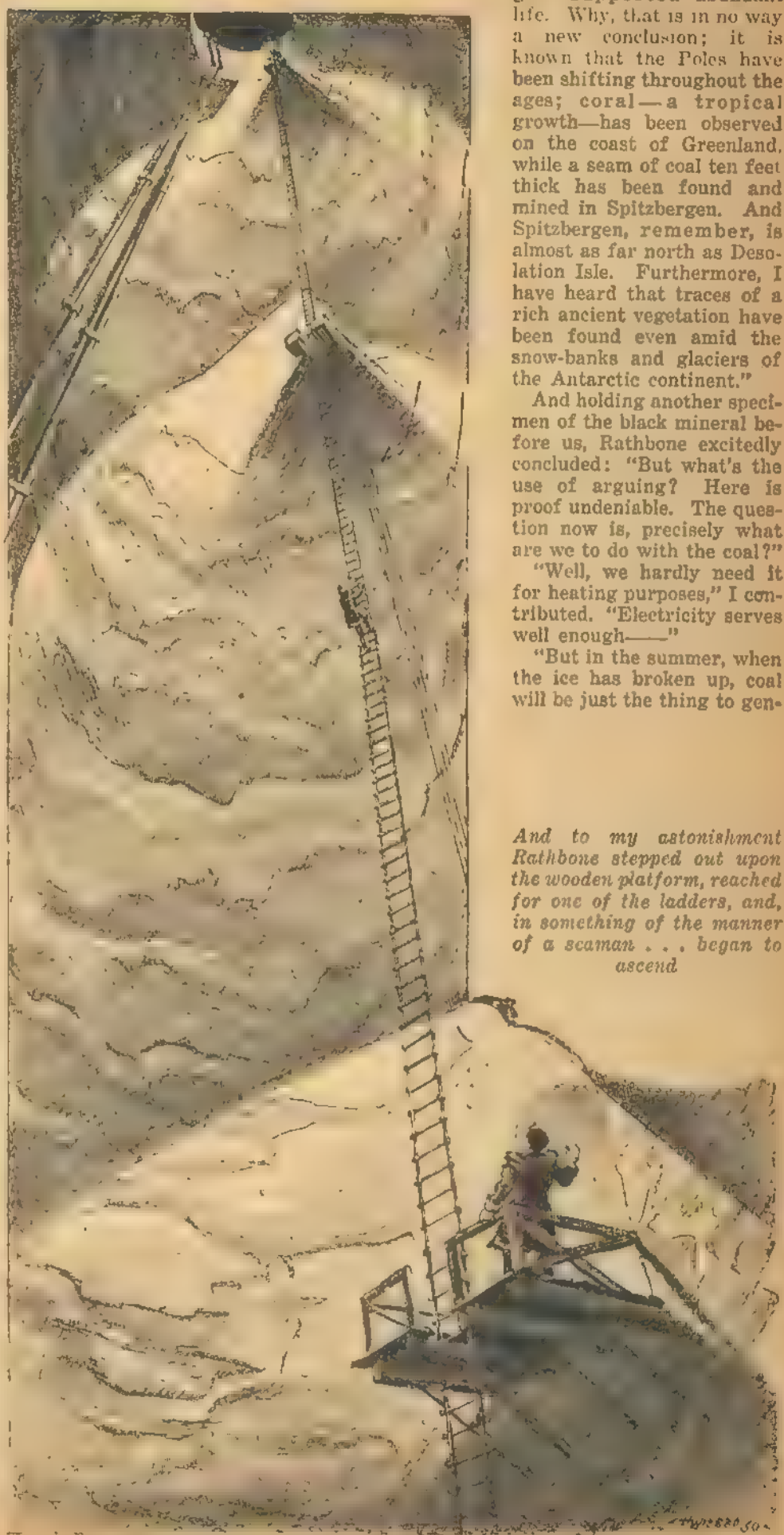
"But is the vein extensive enough?" I inquired, not quite sharing Rathbone's enthusiasm. "It seems incredible that there can be much coal in these latitudes, for coal, as a by-product of ancient tropical vegetation, would hardly be expected so near the Pole——"

"Not at all!" stated Rathbone, with emphasis. "There can be no doubt that in distant geologic eras—a matter of millions of years ago—climatic conditions here were totally different, and this region supported abundant life. Why, that is in no way a new conclusion; it is known that the Poles have been shifting throughout the ages; coral—a tropical growth—has been observed on the coast of Greenland, while a seam of coal ten feet thick has been found and mined in Spitzbergen. And Spitzbergen, remember, is almost as far north as Desolation Isle. Furthermore, I have heard that traces of a rich ancient vegetation have been found even amid the snow-banks and glaciers of the Antarctic continent."

And holding another specimen of the black mineral before us, Rathbone excitedly concluded: "But what's the use of arguing? Here is proof undeniable. The question now is, precisely what are we to do with the coal?"

"Well, we hardly need it for heating purposes," I contributed. "Electricity serves well enough——"

"But in the summer, when the ice has broken up, coal will be just the thing to gen-



And to my astonishment Rathbone stepped out upon the wooden platform, reached for one of the ladders, and, in something of the manner of a seaman . . . began to ascend

erate the electricity!" pointed out Rathbone. "That solves one problem which was worrying me."

"And meanwhile," added Kenworthy, "we can utilize it for fuel in forging rails and making cars for our electric railway between the settlement and the power-plant and pit."

"And in a hundred other ways, it will prove invaluable!" Rathbone asserted. "I cannot begin to predict all that we will do with it, but we shall do much more than any of us now imagine. The day may come when we will thank our lucky stars for the accident which put coal in our path!"

None of us, hearing Rathbone's enthusiastic forecast, were inclined to take his words without the traditional grain of salt. Yet an hour was indeed to arrive when, amid scenes of flame and terror, we were to esteem the black fuel as a veritable gift from the gods.

CHAPTER XIII

Across the Frozen Waste

A FEW days later —or, rather, a few "sleeps" later— Dr. Straub gave me my final examination, and wrote out his concluding report on my illness. I was now as nearly cured as I could expect to be, he announced officially to Rathbone, and might be assigned to regular duty at any one of a number of forms of work. It was to be recommended, however, that a considerable part of my time be spent outdoors, for my lungs showed the after-effects of my ailment, and it was essential that I should receive a regular supply of fresh air.

"I have been wondering about you," my friend began, slowly and gravely, after we had briefly discussed a few irrelevant matters. "I am not sure just what work you could do best. Above all things, of course, the doctor's instructions must be obeyed. Have you any preferences?"

I admitted that I had none, and Rathbone thoughfully looked over a notebook filled with an almost illegible scrawl. "It's useless to think of giving you work in the confinement of the pit," he meditated. "The same may be said of the coal mine, which we are planning to work. And the power-plant would be almost as bad. And as for the laboratory behind the power-plant—unfortunately, you haven't had any scientific experience. And I don't want to give you some menial duty at the settlement, such as helping the Eskimo women mend the garments, or serving on the 'kitchen police.' No, Rodney, I don't want to waste you in any such way. The puzzling part of it, however, is that I don't know what else to suggest."

"There doesn't seem to be much else, does there?" said I, noting the troubled frown on the face of my friend. "Well, don't worry about it. I'm willing to do anything at all to help out."

There followed a moment's silence, while Rathbone still perused his notebook in manifest perplexity.

"Ah, here's something!" he burst forth at length, in sudden relief. But almost instantly the pleasure died from his expression. "No, I should know better than to suggest that. It wouldn't do at all."

"What is it?" I demanded, all the more interested because of his quick change of mood.

"Nothing you'd care about, I'm sure," he returned. "No, it wouldn't be at all in your line."

"But what is it?" I repeated.

"It would be a waste of words to tell you."

He sat looking across at me severely, inquiringly, and with a doubtful expression on his pale, harried face. "You see, it's this way. We could use another driver for the dog-teams—one who could go hunting with the dogs. Our provisions are likely to run low before the winter is over, and a little fresh meat would help out. Just now, we have only three men in camp whom I would trust with the dogs—Norwood, and the two Eskimo drivers. There are fourteen dogs in all, and two men to each team would not be too many—would be almost essential, in fact, if it comes to corraling game far out on the ice and bringing it into camp."

"And what makes you think I could not qualify?" I inquired, stung a little by Rathbone's implication that I was unequal to the task.

"It is not that you could not qualify," he corrected. "It is that the work would not be to your liking. You have not had the necessary experience; and, beyond that, you are not prepared for the hardships and privations. Do you realize the peril of venturing far out across the frozen sea, when the treacherous ice may open at any moment and engulf you—or when the blizzards may blind and ambush you, with the temperature at sixty below? Sometimes, though but a few hundred yards from home, you could save your life only by building a snow-hut and remaining there for hours; at other times you would feel the pangs of starvation; or, if your furs became damp, you might be half frozen; or, again, you might come face to face with famished wolves or polar bears. No, Rodney, no!—I cannot think of submitting you to such perils."

"Oh, so that's it, then?" I exclaimed, perceiving Rathbone's real objection. "So you're trying to shield me from danger! You surprise me, Steve! Since when have you sought the safe way yourself? There may be risks in going out on the ice, but there are also risks in staying in camp. I really should like very much to try my hand as dog-driver and hunter. At least I have some of the qualifications. I've always had a way with dogs; surely, you haven't forgotten Nellie, my old collie; nor Bounder, my police dog——"

"Yes, but Eskimo dogs are quite another thing!" interrupted Rathbone, with a grim smile. "They are only two steps removed from the wolf. They look like wolves; they act like wolves; they fight like wolves; except for their curling tails, you might believe they actually were wolves. I am afraid you will find them a tough proposition to handle."

"All the more reason to want to handle them!" said I.

And there followed a long discussion, during which Rathbone's objections one by one were battered down. Finally, after an hour's debate, the victory was mine! Still with manifest reluctance, Rathbone yielded to my importunities.

BEFORE the day was over, I started to take advantage of the opportunity. And thus began my long partnership with Quinanguak—known for short as "Quin"—the younger of the Eskimo dog drivers. Having been educated at Nome, he spoke English passably well, and, under his instruction, I was initiated into all the mysteries of dog-teams. I was taught, among other things, how to feed the dogs, how to control them, how to reward and punish them, how to prevent them from slashing at one another, how to hitch them up in a wide band, no two at the same distance from the sledge; how to detect the shirkers and slackers and to thwart each of the wiles and ruses by which, almost in human fashion, they seemed bent on attaining their own ends. Sometimes Norwood would lend a timely word to hasten my education; sometimes I would receive advice or assistance from Norwood's Eskimo helper, Asukitsoq; yet, on the whole, my difficulties were not many, and I found my formidable-looking charges to be not wholly different in nature from the tamer dogs of temperate climes. Hence it

was not many days before, having acquired much practice in flicking the long lash, I would venture out by myself with the team of seven "huskies," piloting them with a load of hundreds of pounds across the icy waste to the pit or the power-plant.

True, I was not without my troubles. Once the entire team started to run away, and were checked only by Norwood's timely appearance; and more than once they engaged in a free-for-all fight among themselves, amid a bedlam of whirling fur and snapping jaws; while I had constant difficulty to prevent them from biting through their harness, or stealing one another's rations, or showing threatening fangs to some human being who had incurred their displeasure. To keep them well fed was a particular problem, for their appetites were voracious, and they had to subsist entirely on canned pemmican (a highly concentrated food, consisting of desiccated meat mixed with fat); and it was partly in order to keep them from starvation that we planned the hunting expeditions.

But before we undertook any hunting, there were many duties to perform about camp. When the sledges were not needed to transport food from the settlement to the pit, or to convey weary workers from the pit to the settlement, they were used in conjunction with Rathbone's mining operations. For he had begun, in a small way, to operate the coal mine, appointing three or four men to hew out the easily accessible chunks by means of pickaxes; and, at the same time, he had begun to dig for iron, obtaining the ore from surface deposits that occurred abundantly within a mile of the power-plant. Between the power-plant and the iron fields, accordingly, a crude road for our sledges had been marked out and illuminated, like our other roads, by a long line of electric lights; and along this trail, which we jocularly named "the highway," I was required to make several round trips a day, bearing the newly mined ore to a stone furnace recently erected beside the power-plant. There, with the aid of the coal, the ore was slowly smelted; and after certain manganese and nickel compounds had been added, the whole purified, and the slag removed, a fairly good grade of steel would solidify in the moulds. Truly, we seemed on the way of conquering Desolation Isle! And day by day, as I drove my dogs through the snowy tundra with their load of the precious ore, I told myself that I was playing an essential part in our success, since without the dog-teams the ore would have been inaccessible.

Yet we foresaw a time when the dogs were not to be required for transporting ore. Among the first products of the foundry were small, light rails, and steel bolts and ties, which began to be stacked up as the basis for the most northerly railroad in the world. It was soon discovered, however, that it was impossible to lay the rails on the unstable fields of ice and snow, and accordingly the products were held in reserve until the ice should melt, after which, Rathbone was confident, there would be no great difficulty about constructing the railroad. But meanwhile the dog-teams reigned supreme.

It may be thought that my duties were rather monotonous as I drove back and forth, back and forth, back and forth, always along the same route. Yet there was an exhilaration in facing the chill, tingling winds, and I experienced many a wild ride that brought a glow to my cheeks and an exultation to my heart. Besides, an exciting diversion was soon to appear. I had heard several discussions, wherein Norwood always took the leading part, regarding the possibilities of finding game; and occasionally we had seen the trails of hares and foxes in the deep snow, while once a walrus had been observed on an inaccessible sheet of ice, and from time to time a seal had been discovered coming up in its blow-hole or lying on the ice, but had not permitted us to approach within shooting range. For a long while, however, there was nothing that seemed to offer an attractive prospect, and the opportunity, when it did come, was both sudden and unexpected.

IT WAS early in that part of the long night which we called "the morning," and the more sluggish of us, having just completed our eight hours' sleep, were drowsily contemplating the prospect of rising in a cold, dark world. As I idled beneath my heavy covers, I was entertaining myself with delicious visions of a land, which now seemed incredibly remote, wherein there was daylight every day, and snow and ice did not always cover the earth; and I was in no hurry to exchange my agreeable fancies for the bleak reality. I was to be aroused, however, with startling abruptness. Suddenly I heard the door flung open, and the shrill tones of my Eskimo helper jarred upon my ears; while from without, in the brief interval before the door banged to a close, there was borne to me a din and a howling which could not be that of the wind.

Why was it that the dogs barked in such excited chorus? So I asked myself—and the answer came to me the next moment as Quin, bursting into my room, greeted me with furious exclamations.

"Bear! Bear outside!" he gasped. "Big bear! Walk right by camp! Near here right now!"

"A bear?" I demanded, borne at one great leap back to the grim world of facts. "Did you see it?"

"No! But the dogs see it! The dogs smell it! You hear how they bark!"

"How do you know it was a bear?" I inquired, beginning to share in the excitement that sparkled from the dark eyes of Quin.

"I know it easy enough! I see the tracks! Great big tracks! Not the tracks of fox!" he cried, with decisiveness.

"Well, then, let's go find out!" I decided, leaping out of bed and hastily beginning to dress.

"Big bear make very good meat!" pointed out Quin, still in flashing-eyed excitement, while I pulled myself into my clothes in record-breaking time. "Hurry! We catch him!"

Before leaving the house, I took the precaution of equipping myself with my rifle, which hung from a bracket on the wall, and which I had last used on a moose-hunting expedition in Ontario several seasons before. Thus protected, I had no fears; and my eagerness began to equal the Eskimo's when, clearly marked in the soft snow not ten paces from my own door, I observed the eight-inch footprints, excellent testimony of the dimensions of their maker.

For several hundred yards, by the illumination of flashlights, we followed the tracks, and all the while the uproar of the fettered dogs, wailing and howling from their beds amid the snow, made a weird, unnerving accompaniment. But, whether because of this disturbance or because his acute senses had warned him of the approach of danger, our intended quarry was nowhere to be seen, although the moon was now at its full and flooded the landscape with a soft illumination by which it was possible to see for a considerable distance. At length, having followed the tracks to the fringe of the sea-ice, and having observed how they wound out across the frozen ocean and were lost to view, we were compelled temporarily to abandon the pursuit, and returned to the settlement while the dogs still howled and my companion filled my ears with feverish exclamations concerning the possibility of taking the team and going out after our escaping prey.

So enthusiastically did he present the idea that it

. . . While he, in the capacity of architect and builder, was to join them together to form a low, dome-shaped hut.

began to take forceful grip upon my imagination. And when, arriving at the settlement, I saw Rathbone emerging from one of the houses, I approached him with the request that I be allowed to harness our dog-team and set off with Quin across the ice. At first Rathbone seemed unwilling to consent, pleading that the risk was too great; but Quin joined forces with me, his earnestness speaking eloquently for him even when he could not find words for his thoughts. And by degrees he made Rathbone understand not only how good was the opportunity to restock our larder, but how easily the bear could be pursued, overtaken, and slain. Above all, Quin urged the necessity for haste, lest the intended victim get away; and it was this plea which, by compelling a quick decision, won our leader's consent to an undertaking of which his better judgment clearly did not approve.

His face was creased with grim, mournful lines when he uttered the words that sent us scampering away for dog-teams, weapons and provisions. "We will be back in a few hours," I cried to him, scarcely noticing his solemn mood, while I followed my Eskimo partner excitedly across the snow. And a few moments later, having snatched our equipment in the shape of knives, ammunition, pemmican for the dogs and several bars of chocolate for ourselves, we set out in jubilant pursuit of the great monarch of the wilds.

But we were not to be back in a few hours. We did not in the least realize the magnitude of the task we had undertaken; and the adventure that followed was to be one that I would remember with a sigh and a shudder for many and many a day.

CHAPTER XIV

The White Death Threatens

As we set out across the ice after our retreating prey, neither of us imagined that it would be more than an hour or two before we had overtaken and conquered the giant. Even the dogs seemed to share in our anticipations, for, with their noses searching out the new-made trail, their tongues lolling out and their eyes glowing like those of wolves, they trotted ahead at an exceptional pace, gliding across the tumbled and uneven surface of the ice almost as swiftly as though it had been a smooth plain. True, the enemy had made their task somewhat easy, since he had avoided the rough spots and chosen the level places, where a prowling beast and a sledge alike would not be much impeded. But in this very advantage there was a disadvantage, for the beast had traveled farther than we had expected, and it was many minutes before we even thought we caught a glimpse of him. And then the object which we took for our victim, and which we stalked stealthily with rifles poised and pointed, turned out to be nothing but a tall block of ice, which, reflecting the moonlight, bore a remarkable similarity to a bear. Several times we repeated this error, until we had learned to distrust our own judgment; and by degrees, as the minutes lengthened into hours and we followed the tracks across the white waste and saw no sign of their maker, we began to conclude that our hunt was not going to be precisely child's play after all.

But still, with lips grimly set, we persisted, the inaccessibility of the prey only making him seem more desirable. Even when we were beset by a low pressure ridge, over which the bear had elbowed its way, but around which we had to plod for laborious hundreds of yards, it did not occur to us to turn back; and after we had circumnavigated the obstruction and once more were following the trail, we were elated rather than depressed, for we did not believe that success could be far away. "Pretty soon the bear stop. Then we catch him," predicted Quin, in his terse, decisive way; and, buoyed up by this hope, we urged the dogs to greater speed, while, jogging along beside them at a steady pace, we glowed with the invigoration of the frigid, heartening air.

Even now I believe that Quin was not greatly wrong; we would certainly have overtaken the prey had it not been for an unforeseen obstacle. After forcing our way over an irregular pile of ice—a pressure ridge in miniature—we came out suddenly upon an open lane or "lead" of water. The bear's tracks, reaching the edge of the ice, ended abruptly; undoubtedly he had

swum the twenty or thirty yards, and resumed his pilgrimage on the opposite bank. Should we continue the quest? As I gazed into the black, forbidding water, a strong impulse ordered me to turn back; and possibly a similar impulse came to Quin, for he stood hesitating at the brink of the ice, an inscrutable expression on his face, and for a moment he did not speak.

But at that crisis an evil mischance intruded. "You see him! There he is! There! Over there!" the Eskimo exclaimed, suddenly, pointing out across the shadowy ice-fields. And, peering in the indicated direction, I at first observed nothing; but at length, under his excited prodding, I did notice something indeed. This time there could be no mistake! That vague shape amid the frozen waste was moving!

As if to mock us, the bear came to a halt, and stood gazing at us from his stronghold beyond the open lead, several hundred yards away and well out of effective rifle range!

"We find big block of ice! Ferry across water!" directed Quin, as his gaze traveled excitedly up and down the lead. And back and forth along the rim of the fissure the two of us wandered, looking for a big detached cake of ice to serve as raft for the dogs and ourselves. But nothing large enough was to be seen. And all the while, perched on an eminence in the inaccessible, the master of the wilds sat staring at us as if in sardonic defiance.

"We go around the water!" Quin at length decided. "Maybe not so very far!"

"How far?" I demanded.

He flung his hands up in a puzzled gesture. "How can I know? Maybe one half mile. Maybe ten miles. Maybe further. We go find out."

And, not waiting for my concurrence, he issued a sharp order to the dogs, and we started along the great rift in the ice.

From the first, the results were not promising. When we had gone half a mile, the lead had widened to a hundred yards, and we still had not seen the desired block of ice. When we had covered two miles, the lead was several hundred yards across; and, after the third mile, though it had narrowed once more, we knew that we were drawing hopelessly away from our quarry. And by this time, also, there were graver reasons for concern. A sharp rise in the temperature, which we were only now beginning to observe, seemed to betoken nothing promising. "Big storm on the way!" Quin finally surprised me by deciding, with his usual suddenness. "We go back! Get bear some other day!"

And back we turned, although at first I imagined his decision to be but a vagary of the Eskimo imagination.

But I was to learn that his words were born of no mere whim; his acute senses had evidently caught signals imperceptible to my own. Before we had retraced our steps many miles, a violent wind began to blow, so powerful that we had difficulty to hold our way against it. Not a few times we were literally unable to remain on our feet, and once the sledge and the dogs were lifted bodily and hurried several yards into a snowdrift. At last I was experiencing real Arctic weather!

The worst of our troubles, however, was not the wind; for clouds had begun to drift across the sky, covering the moon and stars, and filling the world with a thick, impenetrable blackness, in which it was not possible to see ten feet ahead. But even more terrible than the darkness, if anything could be more terrible—was the hard, sleety snow that commenced to fall, coming like miniature bullets before the driving gale, and stinging and pummelling all the exposed parts of our faces. Against such a storm it was impossible to proceed; and as we struggled on for a while and then came to a hopeless halt, I had visions of being lost in the wilderness, and being frozen to death.

Had it not been for Quin, my chances of survival would have been slight. He it was who immediately took charge of the situation, and, with the decisiveness of long training, did the one thing that could save us. "We build igloo!" he yelled into my ear, above the screeching and howling of the gale; and I, who had begun to gasp disquietingly after my recent exertions, was only too ready to seize at the suggestion.

BY the intermittent illumination of a flashlight, I watched Quin as he pulled his snow-knife from his belt and carved out a great block or brick of hard snow. This was to be one of the foundation stones of our house; and during the next hour, profiting from his instruction, I was to cut about fifty such blocks; while he, in the capacity of architect and builder, was to join them together to form a low, dome-shaped hut. Our working conditions were most unfavorable; the wind, in its lashing fury, lunged repeatedly at us, as if to demolish our frail edifice; yet Quin designed our house shrewdly, and finally managed to complete it—a tiny affair approachable only through a low tunnel, and barely large enough to contain the two of us. Having finished this edifice, we erected little snow shelters for the dogs, who had been lying amid the ice and sleet, apparently none the worse for the experience; and then, thankful to escape the screeching whirling pandemonium without, I crawled after Quin into our new home.

Unfortunately, we were without any of the blubber lamps which the Eskimos use for light and heat; but the warmth of our own bodies combated the chill of the hut and raised the air to an endurable temperature. Regardless of our cramped and crowded quarters, and regardless of the eerie sensation of being cooped up in the darkness with a solitary companion, our igloo seemed a mansion, indeed, and I have known palatial accommodations that have been less welcome.

Only after creeping into our shelter did I begin to take serious stock of our situation. "How long do you think the storm will last?" was one of my first questions, once my companion and I found ourselves out of immediate peril; and I was in no way reassured by his reply, "It last till it get tired out. One day, maybe. Two days. Three days." Now, all at once, I felt trapped—trapped like an animal in some gigantic snare of the elements. Was it that we had been lured to our death by the prospect of bear-flesh, as a rat is lured by the prospect of cheese? Why had we set out on this foolhardy enterprise? Or why, if we had set out, did we not come better prepared? Gloomily, as Quin and I munched a meager bar of chocolate, we considered the extent of our provisions—and with most unpromising results. Our supply of chocolate was barely sufficient for an appetizer, although we might require food for three or four days; whereas the dogs, having only pemmican enough for a single meal, were certain to go hungry. Or should we allow them enough for a single meal? It was Quin who proposed the solution that seemed both repulsive and cruel, and yet strangely natural in the circumstances: the dogs' pemmican, while not intended for human consumption, would suffice to keep life in our bodies. And so that day the animals were compelled to go on half rations; while Quin and I, consuming part of their dinner and half choking on the fragments of bone, realized that, if the storm continued, we could not enjoy even such poor fare after tomorrow.

I have no way of reckoning how long Quin and I were dungeoned in our snow-hut. In my excitement, I had forgotten to wind my watch; and when, after

many hours, I glanced at it by the rays of the flashlight, the hands had ceased to move. It did not occur to me to wind it again; hence I could not determine whether the storm raged for two days, or for three, or four. I only know that it seemed an incalculably long time, while the darkness remained unabated, the wind wailed and cannonaded past with a frenzy as of embattled fiends, and the outside world was a chaos of swirling, arrowy flakes. Most of the time my companion and I merely lounged about our hut, conserving our energy; and many of our hours were mercifully passed in sleep, from which it was cruel to awaken—as I did more than once—from dreams of steaming broths and savory-smelling sweetmeats to the bitter reality of hunger and the darkness. For, although our inactivity retarded starvation, there came a time when I felt such an emptiness within me that I could understand the famished wolf's impulse to gorge on red blood; and a while later there came a time when I began to consider, not with entire repugnance, the possibility of securing a scant nourishment by chewing the leather of our boots or the fur of our garments. Quin also, he admitted, had some thought of consuming the surplus parts of his apparel; while another suggestion of his—and one which, even in my ravenous condition, I thrust from me as too repellent—was that we save our lives by slaughtering and devouring one of the dogs.

Fortunately, the blizzard showed signs of relaxing before I was compelled to agree to this measure—for who knows what I should not have done eventually under the last of the great primal impulse? On what was possibly the third or fourth day, Quin arose and left the hut while I was sleeping a sleep of fitful, half-delirious dreams; and in the midst of a ghastly nightmare, in which we had finally trailed down our polar bear and he had seized me in his mighty claws and was shaking me as a cat shakes a mouse, I opened my eyes with the vague awareness that Quin was bending over me, shaking me vigorously.

"Quick! Get up!" he dinned into my ears in his shrill staccato. "The wind stop! We leave igloo!"

Still not fully awake, I arose and crawled after Quin through our narrow cell-entrance and out into the open world.

Surely enough, the wind had stopped! The snow, too, had ceased, and the clouds had been swept from the face of the sky; while the moon, no longer at its full, looked down with mellow, benignant beams on a world of fantastic white. What deep new drifts had formed! and how heavily the snow lay heaped upon the frozen sea! The cold, though piercing, was not a match for our thick furs; while progress shoreward, I thought, should be unusually easy, since the soft, fairly even surface should offer no particular obstacles for our sledge and snowshoes.

It took us but a short while to hitch up the dogs, who, though their surly tempers showed evidences of their fast, appeared to have withstood hunger better than did we. And as we set off across the ice in what we took to be the direction of the camp, I was so excited that I temporarily forgot my ravenous appetite.

But now, when we seemed already half out of danger, new troubles began to appear. From the first, we were battling against a deadly uncertainty. Our old tracks had been obliterated by the fresh-fallen snow, and lay buried so deeply that even the sensitive noses of the dogs offered us no clue. Hence our position was a little frightening. Without food, without compass, without sense of direction amid the unending miles of barren ice!—as well be stranded without water in the heart of the Sahara! Already in imagination I could hear the funeral services read in Desolation Isle. I could see my comrades gather in grim assemblage amid the snow, Rathbone with his face more deeply furrowed than ever, Norwood and McDougal perhaps too sincerely grieved for words, Allenham conventionally regretful, and Ada—would her lovely eyes be dimmed with just the trace of a tear?

At thought of her, the desire to live, at all costs to live, to conquer this pitiless desolation, came upon me in a great, compelling wave. And, trying to forget the raving vacancy within me and the feebleness that was assailing my limbs, I bit my lips savagely and struggled on and on through the desert of snow and ice, now and then riding a short distance on the sledge, more often walking in order to relieve the tired dogs, but almost constantly beset by visions of food and warming fires.

Had the sky remained clear, the eminence of Devil's Peak would have stood out in the moonlight, and under its guidance we might have been able to make our way shoreward. Unfortunately, however, low clouds began to drift once more across the sky, permitting us only a fleeting glimpse of the mountain; and that one glimpse, which we could hardly keep in mind as we wound among the snow-drifts and the ice, had to do duty both as lantern and as compass. Now, with the heavens once more obscured and our only illumination the pale light that filtered uncertainly through the clouds, we could scarcely see where we were going, and after a while were content to let the dogs choose their own path and to entrust our last frail hopes to their supposed sense of direction

IT will be needless to dwell upon the details of that long pilgrimage amid the darkness. Little fragments of remembrance, like the recollections of delirium, come back to me out of that period of Purgatory: how once I slipped and fell, bruising and cutting myself upon the ice; how now and then we would pause to make ourselves a drink of the slow-melting snow; how our breath would freeze as soon as it touched the bitter outer air, and how once the perspiration beneath my garments froze, subjecting me to unnameable agonies and frostbite; how at times I panted and gasped by distressing spurts, and an ominous pain made itself felt about my heart.

But all this I will pass over, for it was eclipsed by the final event. Ultimately, after we had spent eternities in wandering we knew not where, the gods of the weather seemed bent on dealing us a last malicious blow. Under the proddings of a sudden wind, the air once more was thick with whirling snow and sleet; and once more we groped blindly for our way as the pellets smote us in the face—while even Quin, who hitherto had kept plodding on and on in the grim, stolid way of his kind, showed signs of breaking down. His thick-built, yet agile body was now hunched far forward; he walked with a hopeless, unsteady gait; and in his eyes, when now and then they turned upon me in the darkness, there glowed a haunted, sepulchral fire. But perhaps this was only my own mad fancy; for by this time I was too weak and too rabid with hunger to notice anything clearly; repeatedly I reeled and staggered, while a dizziness filled my head, and a numbness was in my limbs . . . until at last, overcome by an unbearable weariness, I was vaguely aware of tottering, of falling into the snow, and of lying still, mercifully still. . . .

It seemed that a long, long period went by. I must have been but half conscious; by feverish, spasmodic bursts it came to me that I was miles and miles away from camp and friends; I saw the great icy barrier between, and knew that I would never return. But that was all. It did not matter what happened to me; I was so tired that it did not seem to matter at all; it was best merely to lie still, and not to trouble one's tortured

mind any further, and not to care about anything at all. Fitfully and deliriously I was drowsing away; fitfully and deliriously, in a manner that seemed confused and unreal, I was dropping into a slumber that might have lasted for eternity. . . .

And by degrees the time arrived when I was not hungry any more, and not cold, and a great mantle of mercy and peace seemed to have settled over me. Then all at once, while contentedly I subsided into oblivion, there came a dagger to stab me in my sleep. I groaned, and wondered confusedly what the disturbance could mean; and, while I wondered, there followed a prod and a jerk to arouse me still further; and a great buzzing of voices was in my ears, and something long and powerful was thrust beneath my limbs, and I found myself rising strangely into the air. At this I attempted to cry out in protest, but no one heeded me, though many voices continued to babble; and then hazily it occurred to me that this was another nightmare, and would soon be over.

But it was not soon over. It seemed that hours went by; and gradually, as my senses returned to me, I became aware of unbelievable things. First of all, faces, blurred but human; then the lighted interior of a room; then a cot on which I was slowly deposited. And finally, as I attempted to speak and my lips opened in a feeble sputtering that sounded like mockery, the faces began to take definite form, and one of them assumed a queer resemblance to that of Rathbone, my friend. And next to that was another face, pale, beautifully rounded, with lovely anxious blue eyes; and my excited fancy told me that it was exactly like the face of Ada.

But the strain of that discovery was more than I could bear. Suddenly my lids closed; the dream vanished; the darkness returned; and for a long, long while there was a numbness about my limbs and mind, and a numbness about the world, and all things slipped from me into the realm of shadows and repose. . . .

CHAPTER XV

Vapors of the Abyss

ALTHOUGH I had been within a hair's breath of that adventure from which no man returns, it was not more than two or three days before I had virtually recovered. I had been suffering primarily from two things: hunger, and exhaustion; and since I had now an abundance of the time-honored remedies—food, and rest—there was nothing to prevent my rapid recuperation. True, it seemed to me that I did not receive as much attention as during my former illness; yet I did receive attention enough, and had several visits from Dr. Straub, as well as the occasional services of a nurse who turned out to be none other than Ada herself.

Even before I was well enough to be able to report my adventures in full, I heard from Ada of the excitement in camp following our disappearance, of the impossibility of sending out rescuing expeditions because of the blizzard, and of the failure of searching parties to find any trace of us after the storm had ceased. We had therefore been given up as lost by all except the highly optimistic, of whom Ada accounted herself one; but when the second storm had commenced, even the few hopeful ones had begun to nod their heads mournfully. It was therefore with the utmost surprise that one of the men, foraging a few yards from the settlement to secure ice for melting, had observed a stumbling figure approaching, apparently in the last stages of exhaustion, while beside him the dragging forms of several sledge-dogs emerged from the darkness. It was Quin and his team! More like a ghost than a man he must have looked, with his sunken features and glaring eyes; and it is no wonder that the gaping watcher did not recognize him at first. But Quin, partly by words and partly by signs, quickly made his identity known, and made it known also that his companion lay floundering in the snow a short distance behind. Without suspecting it, I had struggled to the gateway of deliverance, and then, giving up the struggle, had fallen within a stone's throw of the shelter I had craved!

But when my plight at last was known, it was a simple matter for my fellows, guided by Quin, to rush out into the night and find me, to lift me upon an improvised stretcher, and to bear me to safety. This accomplished, they had likewise had to help Quin, who had also been in a state of collapse, but whose recovery was to be considerably more rapid than mine. Before I was up, he was to pay a visit to my sick-room, grinning happily, and ready to regard our adventure in the light of an amusing incident.

As a sufficiency of sleep and food began to send warmth and vigor once more through my veins, I came to perceive that Quin and I were not the only ones who had had experiences during the past few days. As soon as I was in a state to observe things once more, I sensed a certain atmosphere of uneasiness hovering about the camp; I noticed that Ada looked worried, and unusually thin and pale; I saw how strained and careworn Rathbone's face had grown, and could not attribute the cause entirely to our own disappearance. Then, too, I fancied I heard hurried comings and goings in the room just beyond the partition, and anxious whisperings that I could not make out; I detected something unwontedly solemn about the faces of most of my visitors, and remarked that they would rarely smile and jest as usual; and—what was more significant—I noted the absence of several men, including Norwood and Kenworthy, who had visited me frequently during my former illness.

Even so, I might not have been suspicious, had it not been for the peculiar way in which Ada answered my inquiries, and the obvious evasion in her manner. "Oh, you'll find out about everything in time," she replied, in the soothing manner of a nurse to a sick child. "Meanwhile just rest, and don't worry, and get well."

It was Rathbone himself who put an end to my doubts. One day, when he came to pay me a brief visit, I asked the question that I had asked already of Ada—but put it in much more emphatic form. "Tell me, what is it that has happened about camp?" I demanded. "You must not say that nothing has occurred, for I can feel the disturbance in the very air. Answer! Is it some new disaster?"

He stared at me with grave eyes in which there was no denial, and his thin hand thoughtfully brushed his beard. "You are right," he admitted, slowly, as he sagged into a seat at my side. "There is no reason now to keep it from you. It was Dr. Straub's orders not to worry you by mentioning it till you were up again—but I suppose it would worry you more to be kept in ignorance."

"What is it, then?" I gasped, more alarmed than I can say by his melancholy manner. "I hope—I hope no one——"

"No, no one has been killed," he assured me, solemnly. "That, however, is largely a matter of luck. We are smitten badly enough even as it is."

I gaped at him without a word, waiting for the explanation.

"No, no one has been killed," he repeated. "But several of us have been injured—though, fortunately, not fatally. And operations at the pit have been temporarily halted."

"What was it—an explosion?" I demanded, clutching at the obvious solution.

"No, not an explosion—but something just as bad."

Rathbone hesitated, still meditatively stroking his beard.

"Something fully as unexpected as an explosion," he resumed, a little more hastily. "Let me tell you all about it from the beginning—just as I learned about it myself. Two or three days after your disappearance, I was in my laboratory at the power-plant, very much worried about your absence, but trying to keep busy by building a high-powered radio set—which, as you know, is essential if we are to make our plight known to the world. Suddenly I was startled by the entrance of two men. Both of them were staggering, and very much unnerved; one was blue in the face, and gasping as if at his last breath; while the other bore the signs of new-made burns and abrasions about the lips and cheeks. Naturally, I myself was a little unnerved at the sight of them, and it was a moment before I could compose myself sufficiently to hear their story. Even so, I could not get anything very definite from them. They were so excited that all they could do was to stammer something half intelligible; and I could only make out that something had happened at the pit.

"Without waiting to know more, I snatched at my fur coat, and hastened ahead of them into the storm, which was blowing like the very breath of Hell. Guided by the electric lights, I made my way somehow to the pit, and down to the elevator entrance. As I did so, I passed another workman, also blue in the face, and gasping as if near to suffocation—and while this struck me as strange, I was in too great a hurry to investigate. The elevator stood open just before me, though Allenham, I soon discovered, was not at his post. But there being no time for inquiries, I operated the machine myself, and descended to the three hundred yard level. Upon entering the car, I had seemed to notice a peculiar acrid odor. This should have served me as a warning! When the car came to a halt and I had flung open the door, I was struck by that same acrid odor in a burst that nearly knocked me off my feet. It was the odor of a penetrating, stifling gas, which invaded my nostrils so painfully that for a moment I could not get my breath.

"And I would not have been able to get my breath at all—had I remained where I was. Luckily, however, I had the presence of mind to shut the elevator door and pull the lever that shot me back to safety. But, even after stepping out on the platform above, it was a long while before I had ceased gasping for breath; and I was told that my face, too, as I panted and coughed, had taken on a bluish tinge. A little more of that gas, and you would not see me now!"

"But what under heaven was it?" I asked.

RATHBONE paused long enough to smile a grim, knowing smile. "That is one of the few questions which, even at that early stage, gave us no cause for doubt. A thousand times before I had encountered that same odor in my laboratory—although, of course, never in such a concentrated form. Its quality was quite unmistakable—like an old friend, or, rather, an old enemy—the odor of sulphur dioxide, whose suffocating properties are well known. It is the same gas that, in minute quantities, causes the unpleasant odor of burning sulphur matches—and the same gas, likewise, that is sometimes found among the noxious vapors issuing from volcanoes."

"But all that doesn't explain how it got into the pit!" I pointed out.

"No, it doesn't. I might mention, however, that it wasn't the only unexpected gas in the pit: there were quantities of steam, which quickly condensed or froze; there was hydrogen sulphide, a malodorous gas responsible for the smell of rotten eggs; there were various chlorine compounds, as well as other vapors, some of them poisonous, which have thus far defied analysis. Or, rather, I should say there still are such vapors; for as yet we haven't found any way of expelling them."

"You still haven't answered my question," I reminded Rathbone, while my mind reeled at the thought of the pit filled with lethal fumes. "Where did all those gases come from?"

"That's what I asked myself," admitted Rathbone, soberly. "But the explanation came soon enough, for there had been several eye-witnesses. A discharge of tri-nitro-fluoric acid had just been made into the pit, and the corrosive was eating its way as usual through the rock; when suddenly a violent eruption of gas was observed near the floor of the tunnel, its general appearance being like that of steam released from the exhaust valve of a locomotive. This, as we now know, was probably due to the fact that there actually was a percentage of steam in the mixture. But the more dangerous gases were there also, and it wasn't a moment before the workers began to cough and gasp. Realizing their peril, they immediately began a wild, panicky exit, somewhat retarded because Allenham abandoned the elevator after the first trip. But all the men, thank heaven, did reach the surface alive!—although eleven, including Kenworthy and Norwood, are confined to their beds as a result of the poisoning."

"Anything serious?" I asked, peering at Rathbone anxiously.

"No, no. Fortunately not, though the ones nearest the outburst were rather badly burned by the boiling hot fumes. But Dr. Straub, assisted by Ada, was splendid in giving first-aid. Within a day or two, I expect, everyone will be up and about again."

"And after that, what? How will you expel the gases from the pit?"

Rathbone nodded dolefully. "That is the question. First of all, it is necessary to understand the origin of the gases."

"And you don't understand?"

"I believe I do."

He paused, while his restless hands solemnly stroked his cheeks. "Yes, I believe I understand the origin of the gases. But my explanation is not a pleasant one. Want to hear it?"

"Of course!"

"Well, then, let me take you back to a discovery we made right after our arrival here. You remember finding the lava fields, and Kenworthy's observation that Devil's Peak is an extinct volcano. You remember, also, that it did not appear to us to have been long extinct. Well, the indications now are that it is not extinct at all. At any rate, there still are active volcanic forces beneath the island."

"Active volcanic forces?" I repeated, dully.

"Oh, you needn't be alarmed," proceeded Rathbone. "There isn't very much likelihood of an eruption. Yet the gases in the pit show that eruptive forces are at work at this very moment."

"But how? How do you know that?" I demanded.

"Well, you recall the generally accepted theory of volcanic eruptions," Rathbone went on. "The view is that the magma, or molten rock, composed largely of iron and silicates, underlies the earth's crust everywhere at an average distance of perhaps forty miles. But it is believed that in certain places there are great fissures in the crust, through which this highly heated material wells up to within a few miles of the surface. Then, owing to the diminished pressure, the gases previously held in solution in the magma are released and

make their way to the roof of the fissure, where they gather in enormous quantities, and the power of their compression becomes so great as to shatter the shell above them—as a result of which a volcanic eruption occurs. Now, in the present case, there is reason to hold that we are near one of those great rents in the earth's crust, and that a vast storehouse of molten rock lies not many miles beneath us. It is this, no doubt, that caused the former eruptions of Devil's Peak; and it is this that gives rise to the gases, which, being able to penetrate where the less mobile liquid cannot follow, have forced their way upward through minute cracks and crevices. And one of those cracks or crevices, by an unlucky chance, happened to lie in the path of the excavations for the pit."

"All things considered, that does seem a reasonable supposition," I admitted.

"It is not only reasonable: it is self-evident. Besides, there are other facts to support this view. Take, for example, the change in temperature as the pit was deepened. An increase of one degree Fahrenheit for every fifty or sixty feet would have been as great as we had any right to expect; in fact, a greater increase has rarely been encountered anywhere. Yet measurements at the nine hundred foot level showed an average temperature twenty-two degrees higher than that at the surface—an increase of almost one degree for every forty feet! And measurements at the eighteen hundred foot level showed an increase of forty-five degrees!—while at the twenty-seven hundred foot level, which had just been reached before the disaster occurred, the gain in temperature was a fraction over sixty-eight degrees! Now what does all this indicate? Clearly, that there is some exceptional source of heat beneath the surface of the island. In other words, there is some great fissure in the earth's crust, and the white-hot magma is a comparatively short distance below us."

"After all, I don't call that a disadvantage," I argued, noting how worried Rathbone was looking. "Isn't that the very thing you wanted? It means that you won't have to bore down very far to secure heat enough to reclaim the island."

"Yes, it may mean that," conceded Rathbone, although with a noticeable lack of enthusiasm. "On the other hand, it may mean that we will encounter no end of difficulties. There are risks that I hadn't figured on—hazards that it would be merely disheartening to point out. The meaning is either one of two things: easy success, or total failure. Not knowing which lies ahead, we have no choice except to keep on as best we can, trying to forget the fires of Hell that are sizzling just beneath our feet. The first necessity, therefore, will be to clear the pit of noxious gases."

"But how is that possible?" I demanded. "From the way you speak, it would be death even to enter the shaft."

"So it would be—if one entered unprotected. However, I am working at a scheme"—here Rathbone paused long enough to smile in his old, reassuring way—"I am working at a scheme that may rid us of the gases. It may be a little dangerous, but at least it is worth trying."

"What scheme?" I asked. But Rathbone shook his head emphatically, as if to say, "You will learn in good time." And, quickly rising, he took my hand, and announced, "Now, Rodney, I'd better be getting along. I've been here much longer already than I had intended, and every minute of my time is needed at the laboratory. I may soon have a good deal more to tell you."

And, with a wave and a nod in my direction, he was gone, while into my mind shot visions of flaming geysers and red hot volcanic cones, and fires that spattered the night with blood and terror.

CHAPTER XVI

A Stormy Interval

A FEW hours after Rathbone had left my room, there occurred an incident which served to make all his statements much more emphatic in my mind. In itself, it was trivial enough; but, in its implications, it was not trivial; and it struck me uncannily as a warning, a foreshadowing of things to be. Yet at first I hardly recognized its true nature. I had been drowsing away, in a sleep of fitful, muddled dreams, when something abrupt and violent seemed to seize me by the shoulders and shake me vigorously. My first impression, as I was roused thus rudely from my slumbers, was that some person had laid hostile hands upon me; and I believe that I actually muttered a protest. But, upon opening my eyes, I saw that there was no one in the room; and at the same time the shaking, which had temporarily come to a stop, was renewed in a single sharp jerk: whereupon the walls began to rattle ominously, and a glass of medicine, which stood on a chair at my side, fell with a crash to the floor.

For a moment I lay shuddering in my bed, waiting for the shock to be renewed, and half fearful lest the roof should clatter down about my ears. But the shaking was not repeated. What could it mean? I asked myself. Had there been an explosion at the power-plant? Or had the gases at the pit, bursting forth in a shattering eruption, caused the surface of the earth to shake and tremble?

So occupied was I with these fanciful explanations, and so fearful of calamity, that the obvious solution did not dawn upon me immediately, but I was in no way surprised when Rathbone at length returned to my room and put the query, "Well, did you feel the earthquake?"

"Yes," said I. "It was the first I have ever experienced.

"Let us hope it will be the last!" he muttered. "Luckily, it didn't do much damage, although one of the walls at the power-plant was twisted till it resembles a serpent's tail. But so much for that. I am wondering as to its cause—and I am afraid that it only corroborates all that I have been telling you."

"You mean," I questioned, "about the volcanic forces beneath this island?"

"Precisely. It is believed, of course, that most earthquakes are not due to volcanoes, but rather to readjustments in the earth's crust; yet some earthquakes are known to be volcanic in origin, and everything I have seen leads me to conclude that this one belongs to that class. Evidently some sort of disturbance is going on beneath our feet at this very moment."

"A dangerous disturbance, do you think?"

"Not necessarily. The earthquake may have been the work of pent-up gases and fluids, which will continue to be pent-up. None the less——" Rathbone rose abruptly, and waved his hand as if wishing to dismiss the subject—"there is no telling positively what is to happen. It will be interesting to see if we have any more quakes—and much more encouraging if we don't have any."

And with that Rathbone slipped from the room, his cheeks furrowed with such a thoughtful expression that it is little wonder that he forgot to say "Good-bye." And for a long while, responsive to his dismal mood, I was the prey of melancholy reveries.

But no trace of my sombreness remained on the following day, when Dr. Straub declared that I had fully recovered from my recent ordeal and might once more venture out-of-doors. I felt the full sweet pulse of life again beating strongly in my veins as I adjusted my

fur garments and prepared to go out again into the night—and who that feels vigorous life pulsing within him is not inclined to be hopeful? And so now I thought of Rathbone's gloomy suggestions as of a vanishing nightmare; and even my last terrible experience on the ice could not dull my joy at escaping confinement once more. Like a child lured back to the very fire that has burned it; like a moth enticed again and again to the lamp that has singed its wings, I was fascinated, exhilarated, almost hypnotized at thought of those grim, snowy wastes that had come so near to costing me my life. How could I guess that the elements, as if to test my mettle or as if to mock me, had a new bitterness in store? And yet, in spite of gales and blizzards and frozen seas, we had not reached the heart of the winter; and now, as I stepped again from my comfortable shelter, I realized that there was something new and fearful abroad in the darkness. Little more than the hint of a breeze was stirring; the stars were glittering keenly and tranquilly from a cloudless sky—and yet there was a change, and one such as I had never experienced before. The air that struck my lips and half-exposed cheeks was chilled to such a point that it no longer seemed cold; it stung and burned like fire, and I smarted from contact with it as from contact with a furnace blast; there seemed to be in it some dread, hostile element that gnawed and tore at my very skin and sinews, till existence seemed but pain, and all the warmth and vigor of life gave place to raw misery—to misery, and a yearning for the comfort of fireplaces and of wind-excluding walls.

Wretched as I was after contact with that unwonted cold, it occurred to me that my illness had so lowered my resistance that I only imagined the air to be exceptionally frigid. And so, while my teeth chattered, I glanced at the thermometer, which hung beneath an electric light at the doorway. But my inquiry went unrewarded. The mercury had frozen!

As I glanced up from the instrument, my gaze fell upon two men who hurried past from the direction of the power-plant. Or shall I say that they were men? Certainly, they did not look human! Their faces appeared like masks, or, rather, like ghastly caricatures; for their breath, in the very act of leaving their mouths, had frozen upon their lips, and upon their cheeks and eyelids—and every part of their features not covered by their fur hoods was mantled in ice!

I am afraid that I shuddered at the sight of them, and felt even colder than before, for I knew that I too would soon look but the mockery of a man. For a moment I was tempted to plead my illness as an excuse to creep back into the warmth of my room; then, fighting down this cowardice, I forced myself toward a corner of the settlement where, I knew, Quin would be waiting for me with his dog-team.

A FEW minutes later, I was on my way across the frozen wilderness toward the power-plant. There I paid a brief visit to Rathbone, who seemed preoccupied with his experiments, and barely found time to assure me that, owing to the cessation of activities at the pit, there was very little for me to do. Yet there was at least one thing to be done; out of curiosity, I paid a visit to the pit; or, rather, I tried to pay a visit, for a peculiar acrid odor warned me away before I had reached the entrance, and I was content to survey it from a safe distance. I did approach near enough, however, to detect—or to believe that I detected—a thin, almost impalpable vapor, which issued from the top of the funnel, and which, in the vague starlight, had an unreal and ghostly appearance.

After this, there being nothing else to demand my attention, I returned to the settlement, heartily glad to be able to thaw out in the comfortable, electrically heated rooms. It was now that I paid my first visits to Norwood, Kenworthy, and the other victims of the fumes, all of whom I found to be practically recovered, although several of them looked exceedingly pale and wan, and one or two displayed huge bandages about their cheeks or foreheads. All seemed reluctant to discuss the mishap at the pit; and all, when I mentioned the subject, looked so grave and solemn, and shook their heads so dolefully, that I considered it only merciful to turn to some more pleasant topic. . . .

There followed a week during which an atmosphere of nervousness and unrest was increasingly apparent. The men had less to keep them occupied than at any time since our arrival on Desolation Isle; and Rathbone, searching frantically for excuses to keep them busy, could find nothing to take the place of the suspended work in the pit. "Within a few days," I heard him promise, "we'll try to get things started once more"—but the interval was a wearing time for him as well as for us all. Partly because of that discontent which always accompanies idleness, and partly because the long darkness and the cold were beginning to tell upon their nerves, the men now began to grumble; they complained of ill treatment, and bitterly cursed the fate that had taken them to Desolation Isle; they expressed, for the first time, their doubts as to the wisdom of Rathbone's plans and as to our possibilities of success; and more than one disgruntled worker, as he shuffled the cards in the endless battles for phantom stakes, muttered blasphemous oaths that bespoke the desire for home and friends; while one or two of the more rebellious—among whom, I had reason to suspect, Allenham was included—whispered treacherous things as they chewed their tobacco or moodily smoked their cigarettes, suggesting even that we rise up and force Rathbone to abandon his enterprise and plan to take us back to civilization.

But such murmurs were mere vaporings sprung of inactivity. As yet the real hardships of our expedition had not been felt, and the men had not come to that stage at which privation and suffering urge a counsel of desperation. That this was true became apparent after a few days, when our enforced idleness drew to an end, and a new fountain of interest and endeavor appeared. Then, when the mumblings of the disaffected had reached their height, an announcement was posted that Rathbone desired to see us all at a specified time at his office at the power-plant—and all of us, in the knowledge that something unusual was forthcoming, were eager to be present.

Since every victim of the fumes had now recovered, there were more than forty persons at the meeting—so many that they could be accommodated only after the collapsible partitions separating three rooms had been removed and the whole opened up into one fair-sized hall. It was a curious, as well as a memorable, gathering; never since our arrival on the island had we all come together at once. But we were not quite the same now as we were upon disembarking: not only were two of us gone never to return, but most of those that remained looked tougher and harder, with their muscles more stoutly developed, their newly sprouted beards darkening faces grown sturdier and harsher, and their rough fur garments giving them almost the look of savages. In the rear, perched upon camp stools like the rest of us, sat Quin and his fellow dog driver, with the two Eskimo women beside them—truly creatures of the wild, with their sinewy limbs and their dark eyes flashing like those of forest creatures; while in our midst, the sole token among us all that somewhere there was a world of softness and kindliness and love, sat the one white woman in the camp, taking an alert

interest in all that happened, and yet all the while seeming actually as little in place as a rose would be in a snow-drift.

Had we not already surmised that there was important news in store, we would have known as much from Rathbone's manner as he took his place at the front of the room. He seemed to have about him something of the attitude of one who faces a stern and unpleasant duty; apparently he did not know how to begin; he coughed, hesitated, and regarded us in silence for several seconds; while his long, thin face looked so strained and worried that one might have thought him the victim of some secret obsession.

Yet his first words gave little hint of that which was uppermost in his mind. "My friends," he began, in a simple conversational manner, "you have probably guessed why we are gathered here today. It is because a crisis confronts us. And therefore I want to ask you, for your own sake more than for mine, to give me your undivided attention. It has come to my ears that there have been grumblings and murmurs of discontent. I do not want to be harsh with you, but if anyone has anything to complain of, let him mention it in public. Otherwise, let him beware! We are all in a perilous situation, and unless we work together we shall perish. Therefore I mean to repress any act that opposes our common interest. Thus far, however, there has been only one occasion for punishment. One of your number, who deserted the post of duty at a critical moment

McPherson nodded understandingly, and, with our aid, quickly arrayed himself for the descent

and exposed several of us to needless danger, has been mildly chastised.

"I will not say who he is, but I will mention that he has been sentenced to ten days on half rations."

At these words, a sudden wave of laughter rippled around the room, and a flush of shame came across the face of one man. And I observed how Allenham bent his head low to avoid the amused, contemptuous glances of his fellows.

"I do not regard this punishment as particularly cruel," Rathbone continued. "Before inflicting it, I consulted Dr. Straub, who reported that the victim would probably be benefited rather than injured. Besides"—here Rathbone raised his hand authoritatively, checking another burst of laughter—"this man, as you know, is only undergoing in advance what all of us are likely to have to endure before the winter is over—unless we can sufficiently increase our food supplies by hunting.

"BUT this is not why I called you here today. I am thinking of a matter of much more immediate interest. It is a matter, however, with which only brave men need be concerned. If there be any of you unwilling to face hardship and danger, I would advise you to leave the room at once."

Rathbone paused, as though expecting his suggestion to be followed. But all sat silent as statues, staring up at him in such a tense, eager way that I knew that no orator, however practiced, could have gained better control of his audience.

"Then I take it," proceeded the speaker, slowly, "that you are willing to face danger and hardship. That is splendid! There are a few of you who will have to be very careless of danger. And the success of our expedition may depend upon those few. You all know of the poisonous gases that fill the pit, and of the enforced halt in our work. This has already lasted two weeks; and during all that time I have been busy contriving a plan for driving out the vapors. But it is a plan that cannot be carried out without peril. It will be possible for several of our number, equipped with small tanks of water and an artificial breathing outfit, to descend into the pit, and by means of a welding apparatus, seal up the fissure, which does not appear to be very large. A gas-mask will protect the wearer from the poisonous fumes; while an electric wire uncoiled from above will convey a current to a decomposing apparatus by means of which the water in the tank will be dissociated by a process of electrolysis, the hydrogen being liberated, and the oxygen retained for breathing purposes. The same wire, incidentally, will enable the man in the pit to signal to his friends above in case of need or danger. Several of the contrivances are now ready—and this will be as good a time as any to show you one of them."

Stepping to one side of the room, Rathbone unlocked a cabinet, and drew forth a device that reminded me of a diver's suit, except that it was not quite so cumbrous or bulky. While we watched, he arrayed himself in this queer garb, covering his head with a mask that made him look like some grotesque beetle; while garments of some dark, canvas-like substance completely mantled his limbs; and on his back, penetrated by a confusion of wires and rubber tubes, was a metallic tank somewhat smaller in size than an ordinary water pail.

"The total weight of the suit," he explained, when, after several minutes, he had divested himself of the apparel, "is a little over sixty-two pounds. That may seem a good deal, but it is less than the pack that soldiers are often compelled to carry in war-time. It is no more, in fact, than any strong man is able to endure. As for the garments—they are composed of a specially prepared composite of wool and asbestos, which is such a poor conductor of heat that it will protect the wearer from the hot vapors at the bottom of the pit. All in all, as you will see, I have taken every precaution; yet it is only fair to warn you that there are always risks that we cannot reckon on; and there is always the chance that he who enters the pit, even with the protection of my invention, will never see the light of day again. Therefore, I will not ask anyone to undergo the danger unwillingly. I will not command you; I will not even request; I will simply call for three or four volunteers. And since I do not wish any of you to go where I would not follow, I will make myself Volunteer Number One."

Again Rathbone paused, and again a tense hush came over the gathering. All gazed with earnest, solemn eyes at our leader; and over more than one face there spread a glow of wonder or a pallor of anxiety or dread. Ada, seated at my right hand, smiled up at her brother with a warm, admiring glance; Allenham, just beyond her, stared straight ahead, with a face like a mask, neither a smile nor a frown flickering across his inexpressive features; Kenworthy, across the aisle, sat with cheeks drawn and blanched, in the manner of one who has been listening to a death sentence; while Knowlson, McDougal and several others had a keen sparkle in their eyes, though whether out of mere interest or out of the prospect of adventure was more than I could say.

"Now which of you want to volunteer?" inquired Rathbone, in slow, unemphatic tones.

At this question, Norwood shot abruptly to his feet. "Count me as one!" he exclaimed.

And then, while the rest of us admired and applauded, Norwood surprised us by remaining standing. "At the same time, let me enter a protest," he went on, in vigorous tones, when the din of excitement had died down. "I am astonished, Rathbone, at one of your proposals, which I feel to be very much against the general interest. I'm sure every one will agree with the wisdom of my next statement—for the sake of us all, I want to recommend that you go back on your decision."

"Go back on my decision?" echoed the amazed Rathbone. "What decision?"

"The decision to make yourself one of the volunteers. You know, Rathbone, that you are the most valuable member of our community. If anything should happen to you, there would be little hope for the rest of us. Therefore you have no moral right to volunteer. There are plenty of us to fill that place. There are plenty, I am sure, who would give themselves gladly.

"Am I not right, all of you?"

"Yes! Yes! Yes! Right you are!" called back an enthusiastic chorus. And there was a violent clapping of hands, in which I noticed Allenham energetically participating.

"Now, for example, Rodney here would volunteer," continued Norwood, chancing to catch my eye. "Is that not so? Of course! And McPherson over there wants to volunteer—I can read it in his face. And so does Olafsen—anyone could see that. They're all first-rate volunteers, Rathbone—first-rate, and willing!—and you're morally bound to favor them ahead of yourself. What do you say, everyone?"

There was an emphatic chorus of affirmatives; and McPherson and Olafsen and I, springing simultaneously to our feet, signified our agreement in such decisive terms that Rathbone not only had to accept us as volunteers but had to end by withdrawing his own name from the list.

CHAPTER XVII

In the Fuming Depths

IN view of subsequent events, it proved to be extremely fortunate that Rathbone was dissuaded from venturing into the pit. Had he insisted on descending, our expedition would have had a different ending; and probably no one would remain to tell the story.

None of us, of course, realized this at first; for none of us understood the full terror of those poisoned depths. Personally, I was pleasurably excited rather than alarmed; I looked forward to a sort of stirring game, and not to a neck-and-neck contest with destruction; and I was vastly disappointed when, unexpectedly, I seemed likely to be denied the privilege of descending.

For Rathbone decided that we should enter the pit one at a time. And, in order to avoid discrimination, he drew lots among the four volunteers, with the result that McPherson was chosen for the initial attempt; while, should other attempts be necessary, Olafsen would be the second, myself third, and Norwood fourth.

It was an excited group that gathered in the bitter cold about the pit to watch McPherson descend. "Well, boys, sorry none of you will have your chance down there!" he exclaimed, in a jovial, confident way, before donning his suit. "I won't need any help in setting things to rights." And for the fifth or sixth time he listened to Rathbone's instructions. "Go down as far as you can by the elevator, McPherson. Then, at the twenty-four hundred foot level, leave the car, walk through the gallery to the pit, and descend the final three hundred feet on the rope ladders. But, before stepping out on the ladder, press the little button at your side, which will signal us that all goes well. If you are in any way in danger, press the button three times, and we will send help immediately. In any event, do not remain at the bottom more than fifteen minutes. And when you start back, press the signal button once more."

McPherson nodded understandingly, and, with our aid, quickly arrayed himself for the descent. All of us, as we accompanied him to the base of the pit, were equipped with gas-masks, since even at this distance the vapors would prove injurious. Hence we were stopped from bidding McPherson farewell as, weighed down with his heavy garments, his metallic tank and a small welding apparatus, he began to unwind the wire from a great coil, beckoned to us, and disappeared into the abyss.

For several minutes the wire unwound at a rapid rate, and from the speed of its release we knew that McPherson was making a swift and safe descent. Then, after two or three minutes, it was seen to move more slowly; and a little electric bulb behind the pit gave a flash of light, assuring us that McPherson was at the twenty-four hundred foot level. The next instant, the wire jerked violently, and was uncoiled with startling rapidity; but, after a moment, it became motionless again. This caused us to wonder just a little, but we assumed that McPherson had reached the bottom, and was already at work to seal up the fissure.

There was now nothing to do but wait. If he were in danger, a signal might come at any moment; if there was no danger, the signal might be fifteen minutes away. And so all of us, grotesque as caricatures in our gas-masks and speechless in the bleak night, walked moodily back and forth or stood waiting like statues, while sucking in labored, scanty breaths.

Never had I known time to go more slowly. And yet its passage was a favorable sign. Five minutes, six minutes, seven minutes, ten minutes!—evidently McPherson was encountering no difficulty, for the dreaded danger-signal had not come. Eleven minutes, twelve minutes, thirteen minutes—still no danger-signal!—we watched every second with jealous interest, awaiting the quarter-hour mark at which, according to Rathbone's instructions, the man below must give notice of his intention to return.

But the quarter-hour mark was reached and passed, and still there was no signal. Sixteen minutes, seventeen minutes, eighteen minutes!—the silence was uncanny, unbelievable!—Had McPherson forgotten Rathbone's injunctions? Or had his wrist-watch stopped? Or had he, in his eagerness to finish the allotted task, decided to take more than the permitted time? As yet none of us were alarmed, although Rathbone, pacing to and fro near the base of the funnel, an aloof, silent figure, showed his nervousness by his irregular, random movements and the jerky, needless convolutions of his hands.

Twenty minutes went by, and the awaited signal had not come. Twenty-five minutes, and still there was no word! Half an hour, and the silence remained unbroken! What could have happened to McPherson? What unseen peril confronted him in the darkness? Surely, it was not that the signal apparatus had failed to work—we tested it, and the mocking light flashed brightly. And by this time, in any case, McPherson should have made his way back to the surface. His failure to return could mean only one thing—a thing that we at first sought to thrust from our thoughts as though it bore the message of our own doom.

It was Rathbone upon whom the strain told most. For thirty-five minutes he continued restlessly pacing the frozen ground; then suddenly, as if making some abrupt decision, he strode away from the pit, and motioned us to follow. After reaching a safe distance, he swept the mask from his face, and revealed features which, in the dim electric illumination, appeared ghastly white and haggard.

"No use waiting any longer!" he burst forth, while, even as he spoke, his teeth chattered with the cold. "Something has happened down there to McPherson. Perhaps his mask was not adjusted properly, and the fumes seeped in. He may even now be gasping for help. If we wait longer, it may be too late. I believe someone else should descend."

For a moment, silence greeted these words. Then crisply the voice of Olafsen rang out. "It's my turn, then! Give me the things, boys, and I'll go down!"

"Me, too!" I chimed in. "Two will be better than one!"

Rathbone turned upon me almost savagely. "You just wait your turn, Rodney! We can't afford to risk you also!"

And his manner was so determined that I knew it would be futile to protest.

But I watched in dismay and with a strange obsessing anxiety as Olafsen adjusted his asbestos clothing and prepared for the descent. Everything was arranged with the utmost speed (for the garments had been made ready in advance), and it was less than five minutes before Olafsen, apparelled in his diver-like costume, beckoned to us as McPherson had done, began to unwind a second coil of wire, and disappeared into the shadows.

"If you need help," Rathbone had instructed him, "signal twice. And if you find McPherson, signal four times."

But Olafsen signalled neither four times nor twice as the minutes went by. As before, the wire uncoiled rapidly; as before, there came the electric flash indicating that our comrade had reached the twenty-four

hundred foot level; as before, likewise, that flash was followed by a violent, startlingly quick jerk upon the wire; and, as before, a long silence ensued.

"Strange that he hasn't let us know about finding McPherson!" I reflected, after five minutes had passed. Was it that, having found the other man in a helpless condition, he might even now be assisting him to safety? Perhaps the reason he had not signalled was that he was not in need of aid; in another moment the two men might re-appear together. So I sought to assure myself; but this hope began to wane after the second five minutes; and when the allotted quarter of an hour had passed, and still there was no signal, anxiety gave place to full-fledged alarm, and terrible misgivings came to life within me.

AFTER twenty minutes, there was scarcely one of us who was not near despair. Still we spoke no word, for still we wore our gas-masks as we hovered near the pit; but I could feel in the very air the depression that had come across my fellows, could feel the dread and the horror, the sense of mysterious, threatening powers brooding near. To my mind came visions of two wretches gasping in agony, while, with inflamed lungs, they drew their last poisoned breath; I could see them reeling and writhing in the steaming darkness, their limbs withered by spurts of boiling water, their last stifled cries unanswered amid the tomb-like shadows . . . Now, all at once, it occurred to me that my turn was to be next; and, at that thought, I was filled with blind loathing of the abyss; all my courage deserted me, and fear took its trembling being within me, until I cowered within myself, and had the impression that malign, unspeakable forces lay in ambush for me in the depths.

All this, of course, was the work of a mind overstrained by suspense. Despite my apprehensions, I knew that I would not refuse to face the ordeal; and I realized that, whether death or life were to be the issue, I had reached a point from which there could be no turning back.

This time Rathbone did not wait thirty-five minutes before striding away from the pit, flinging off his mask, and calling us all into conference. Not much more than twenty minutes had passed before he had reached that crucial point. "The same thing all over again!" he lamented, in a low, pained voice. "I cannot understand it! They have both reached the twenty-four hundred foot level, and between there and the bottom something has happened. But what? What? Olafsen's mask was well adjusted; I examined it personally before he went down. And if he is in any other sort of trouble, why doesn't he signal? No matter what has happened, he should be able to signal. It all simply passes my comprehension!"

Apparently it also passed the comprehension of the rest of us, for there were none to attempt an explanation.

"They must have been struck by something swift and sudden," was Knowlson's suggestion. But this was a solution that solved nothing—for what was there in the pit that could be swift and sudden, and at the same time deadly?

"Well, Rathbone, I suppose it's up to me to go down next," I at length volunteered, although my heart sank within me at the thought.

But Rathbone, to my surprise, waved me aside with an emphatic, "Not at all! We'd better not risk any more lives just now! Let's go over our plans and equipment again, and see if we haven't made some mistake."

Despite my protests, this verdict probably would have prevailed—had it not been for the intervention of Norwood.

"You know you've gone over all that carefully enough already," he demurred. "Just think, Rathbone! At this very moment, two men may be struggling for life in the pit—and without the ghost of a chance unless we help them! So I suggest that we don't stand here arguing, but go down to them at once."

"But how expect one man to go down and rescue two?" demanded Rathbone.

"I don't expect one man to go. We've already seen how useless it is to send any man alone. But two will be more than twice as strong as one. Rodney and I are next on the list—so I propose that we go together. And that we go at once! Come on, Rodney! Let's hop into our suits!"

"Not so quick there!" protested Rathbone; and he added many things much more forceful. Yet the voice of public opinion was against him, and ultimately, with a mournful smile, he was forced to yield.

Without allowing a chance for further delay, Norwood and I bedecked ourselves in the masks and asbestos costumes, and hastened to follow McPherson and Olafsen into the depths.

CHAPTER XVIII

The Fate of McPherson

"NO MATTER what happens, we two must keep together. And we must move very slowly and cautiously, so as not to run into any hidden obstruction."

This advice, uttered by Norwood as we were donning our suits, was to be the last thing said by either of us until after our return from the pit. In reply, I could do no more than nod, for by this time I had adjusted my headgear; and while I could see well enough through the glass eye-pieces, and also hear well enough through little rubber tubes projecting above my ears, I had no way of speaking through the thick folds of cloth and asbestos.

I can hardly describe my sensations upon adjusting that suit. It was as though I had been immured from the world; as though I were alive and yet not alive, a spectator of the activities about me, and yet not a participant; I seemed to be sealed up, isolated, literally entombed; while the weight on my shoulders, the impossibility of communicating with my fellows, and the sense that I was surrounded by strange thick walls, combined to make me feel as if transported to some other sphere.

And yet, all in all, my garments were less burdensome than I had expected. The weight was well distributed; my hands were relatively free, and worked somewhat as if covered by woolen mittens; while my legs were no more restricted than if I had worn a stylish, closely cut suit. It did seem a little hard, it is true, to have to entrust my very life to the oxygen generated by an electric two lead line connected to electrodes in a tank of water; yet the actual difficulty in breathing was less than that entailed by a gas-mask. And the apparatus worked quite smoothly upon the whole, the oxygen being passed up to me in quantities automatically regulated by my rate of breathing, and the vitiated air being forced out continuously through an exhaust with its check-valve.

The only part of my outfit entirely new to me consisted of my welding materials. But these were of admirable simplicity. We were provided with several small bars and rods of an easily melted alloy, of which Rathbone alone knew the formula; and we were instructed to inject as many of these as possible into the fissure, and then apply an electric current through a little heat-producing coil or a sort of soldering iron.

As a result, the alloy would melt and fill the crevice to a depth of several inches; and if the metal were kept in place until it solidified, the crevice would be closed, and the poison fumes would be denied all further outlet.

But the fate of the two lost men was of course our chief concern; and misgivings concerning McPherson and Olafsen tormented me as I nodded farewell to my companions and accompanied Norwood down the short stairway toward the elevator. Fortunately, the pit was as well lighted as ever, since the fumes had not attacked the electrical equipment; yet, though there was no ogre of darkness to dread, I was obsessed with strange fears and premonitions when at last I had ventured into the abyss. There was, it is true, something of the thrill of the unknown, of the inexplicable, fascinating me, luring me on, filling me with a dark, shuddery pleasure; but over all, making my knees quake and my heart give little excited tremors, there was the horror that the unknown breeds.

As we made the descent and nothing alarming occurred, my anxiety by degrees was allayed. In the elevator shaft there was no sign of the fumes, which still hovered stealthily in the invisible; and when we entered the car and were shot to safety down to the twenty-four-hundred-foot level, only our own curious apparel bore evidence that anything was amiss.

Alighting at the foot of the elevator shaft, we pressed the buttons signalling our arrival; then slowly and hesitantly made our way through the short gallery to the pit. We half expected that we would now find some sign of McPherson or Olafsen; perhaps even find the men themselves, stranded for some unaccountable reason. But no! they were not to be seen, although two wires strewn along the cavern floor, testified that they had passed this way.

Reaching the edge of the pit, we observed how both wires crossed the brink and disappeared below. But that was the only vital thing we did observe. Even by straining our eyes, we could not make out the bottom, about three hundred feet beneath; for perhaps half that distance we could see the shaft walls descending; but at that point they were lost in a yellow fog.

I must admit that I was reluctant to descend into that mist. Had not our two companions apparently entered it? Did it not hold their secret? Could anyone that followed have hopes of avoiding their doom?

Yet I had no choice but to follow—and the sooner the better, since the time at our disposal was very short. And so, fighting against my terror, striving to master my courage before panic should possess me, I was led to abandon all caution; I was led, as if in defiance of my maddening fear, to do a hasty, ill-considered act—and one that came within an inch of costing me my life.

Seeing a rope ladder that hung from a projecting balcony, I made bold to stride forward, to take firm grip upon the apparently stout support, and to release myself into the depths. Little did I suspect what lay in store! The rope, as though possessed of a malevolent intelligence, remained securely fixed until I had entrusted my entire weight to it; then immediately it betrayed me. With such abruptness that even now I can scarcely say how it all occurred, I heard a snapping sound, and felt myself lunging downward. . . . And to my startled mind, even in that swift fraction of a second, there came visions of appalling chasms—of a vacancy through which I should plunge down, down, down to the shattering rocks.

Already the plunge had begun; were it to last so long as the space between two heart-beats, I would be dashed to destruction. But before I had even time to cry out; before I had time to do more than clutch helplessly at a projecting spur of the rock, arresting my flight for an inconceivably brief interval, I felt something swift and powerful seizing me and jerking me back toward the platform. And my hand, on a furious impulse, reached up and tore at the platform's edge, tore at it and almost missed, and then, as if by a miracle, gained an unsteady hold. . . . The next instant, straining and panting and with the aid of a straining and panting figure above, I put forth my last atom of strength, struggled up, and regained the safety of the ledge.

THE succeeding minutes are a blank in my mind. I flung myself flat on the ground, my head reeling, my heart pounding and hammering at such a rate that I thought it would stop. And now that the danger was over, horror swept across me with such vehemence that I felt suddenly ready to faint.

My companion, too, had flung himself upon the ground, and for a moment seemed incapable of movement. Even his great strength had been taxed to the utmost; and it had been almost by a superhuman effort that he had seized my arm just as I caught at the projecting spur of rock, and, balanced so precariously that he had come near to toppling over after me, had assisted me back to safety.

All this, of course, could not be told at the time; but the facts were apparent even without words. And much that ensued, likewise, was clear enough without the spoken word. When at length Norwood had halfway recovered, he ventured to the edge of the pit, and pointed to something which I had not noticed before because of my mad hurry. Two other rope ladders reached down from the platform; but both, at a distance of a few feet, had broken off abruptly. And beneath them stretched vacancy. The fate of McPherson and Olafsen was now only too evident!

But what had caused the ropes to snap? Being of fresh, stout hemp, they would presumably each have supported the weight of several men. The solution came when Norwood, fighting down the horror of his discovery, reached for the remains of one of the ladders, and drew it over the edge of the pit. A single glimpse showed us what had happened—the strands had been eaten away as by some powerful corrosive. Though apparently intact, their real substance was gone, and they retained only the strength of straw. There could be but one explanation: the fumes and acids in the pit, attacking the hemp much as moisture attacks paper, had rotted the ladders until they had become mere ghosts of their real selves.

Since our only means of access to the bottom of the pit had been destroyed, there was but one course left for us. And, as if by mutual agreement, we adopted that course with as little delay as possible. Trembling at our new-won knowledge, we gave the triple signal foretelling our return to the surface; then slowly, in an enforced silence that was fast becoming intolerable, we made our way to the waiting elevator, slammed the door behind us, and pulled the lever that sent us speeding back toward the open world.

Two or three minutes later, we staggered out of the pit, and, in the midst of an eager, mask-wearing mob, were escorted away from the fume-infested area.

It was with mixed feelings that our comrades received us. The fact that we had returned so quickly was evidence that we had not accomplished our purpose; the fact that neither McPherson nor Olafsen accompanied us could but confirm the most dismal suspicions; yet that we had come back at all was cause for thanksgiving. Even before we were able to utter a word, our friends had guessed much of what we had to say; yet, when all of us had thrust off our masks and were able to speak, they crowded about us in shouting

confusion, putting such excited questions to us that it was several minutes before we could make ourselves heard.

But at length the din died down, and Norwood, with an imperious wave of his hand, prevailed over the agitated mob. Simply and dramatically, his face creased by a bitter smile, he recounted all that had befallen us. He did not give himself due credit in describing the incident of the breaking rope; yet he did dwell emphatically upon the rotted condition of the ladders, and upon the manner in which McPherson and Olafsen had evidently fallen to their death. "Now I see why they didn't signal about the danger," he concluded. "The poor devils didn't have time to realize it themselves. That also explains the violent tug upon the wire, which we noticed both times after the men had reached the twenty-four-hundred-foot level. It was the pull they gave on their way to eternity."

A moment's silence followed this recital. We glanced awkwardly, despairingly at one another, but did not know what to say. How hard to believe that McPherson and Olafsen, whom we had seen alive and vigorous but a few hours before, should now be sleeping the eternal sleep! And how much more sinister their pass-

It was a conflict of the strength of man, against the strength of the elements; the gases . . . hissed and sizzled warningly as the molten metal flowed down into the fissure; and so powerful was their pressure that I could see how every muscle in Norwood's body tugged and contracted . . .

ing seemed than any ordinary death! To each of us, in the terror-haunted secrecy of his own mind, came the thought that the same grim, inimical forces as had reached out for Olafsen and McPherson might even now be reaching out for us—and none could know when or in what manner we might not be seized.

Yet no matter what our fears or regrets, we had little time for mere revery. We were citizens of a bitter land, and with a bitter task before us; and sentiment and foreboding had no place in our scheme of things. "McPherson and Olafsen were good pals! We shall miss them many a time!" was the most that any of us would permit ourselves to say, although we all felt far more than we expressed. And after the loss of our two comrades had been reported and briefly discussed, we had to force ourselves to face a stern, practical duty.

Despite the sacrifice of the two men, the pit remained unworkable—and how descend the final three hundred feet, now that the rope ladders had failed us? It was Rathbone, as usual, who made the saving suggestion, although on this occasion his recommendation required no great ingenuity. "We'll have to make ladders of a different material," he declared, his face furrowed with a weary, pathetic look that told us how deeply he felt the loss of the two men. "And the logical substitute is steel. In time this also may be attacked—but not rapidly enough to interfere with our plans. It will be an easy matter to turn out some wire ladders in the foundry. These will have to be carried down to the twenty-four-hundred-foot level, where they may be fastened to the rock by stout clamps, making the remaining three hundred feet relatively safe. But meanwhile it would be suicidal to enter the pit."

There was no doubt about the reasonableness of Rathbone's plans. Hence we accepted them with but little discussion.

THERE followed two or three days during which, except for those employed at the power-plant or the foundry, most of us remained in compulsory idleness. But we knew that Rathbone was busy manufacturing the wire ladders, and that it would not be long before Norwood and I would make our second descent. And we knew, also that the success or failure of our expedition might depend upon that attempt. It may have been for this reason that a sense of foreboding, hovering over the settlement, was apparent in a hundred ways—in our strained and dismal efforts at gaiety, in the tense and nervous manner of our conversation, in the restlessness and irritability of us all, in the long spells of silence during which even the least moody of us would sit by himself, morosely disdaining all discussion, while gazing disconsolately across the artificially lighted room or out through the windows into the black and storm-shaken night.

During this distressing interval, while I lived beneath the very shadow of doom, there was but one thing to bring me a fugitive comfort. From time to time I caught in the eyes of Ada a soft and heartening light—a light that seemed to show sympathy, understanding, even something that my excited fancy mistook for a kindly approval. Or did it only show pity? Was she merely sorry, as any tender-hearted woman might be, that I was so soon to thrust myself into the very jaws of peril? In the slight lifting of her eyelashes as she glanced at me; in her quick, interested nods in my direction; in the look of anxious concern I once surprised upon her face; in the faint flush that, at another time, overspread her cheek when she came upon me unexpectedly, I observed signs that made my heart leap wildly. Or was it merely a lover's imagination?

For Ada was still to be seen frequently with Allenham. And he, who had angered me by congratulating me with half mocking gusto upon my exploits in the pit, and referring with sly laughter to my failure to reach the bottom, was too much in her good graces to please me. No doubt it was merely jealousy, but I was ready to leap upon him, to throttle him every time I saw him walking arm in arm with her in his bland, possessive manner; while, when I observed the two of them exchanging whispered confidences, and read the proprietary smile upon his rotund, flabby features, it was only a boundless self-control that restrained me from striding forth and fighting out our rivalry, primitive fashion, with knives or fists.

And so, when the time came for the second descent into the pit, I was in a flaming, troubled state of mind. Harassed by the thought that the glowing charm of Ada was reserved for the ox-like Allenham, I scarcely cared what might happen to me; yet at the same time, goaded by the hope that flashed up whenever she smiled at me with her gracious, winning smile, I felt that life might somehow be better worth living than ever before.

Especially did I feel in this hopeful state when, as Norwood and I were leaving for our second subterranean adventure, Ada met me at her doorway. Slipping both her hands firmly into mine, she looked up at me with a clear, earnest light in her big blue eyes. "Take good care of yourself down there, won't you?" she said, with just that slight faltering of the voice which told me that this was no mere conventional plea. "Take good care of yourself—and be back as soon as you can."

With disconcerting suddenness, the pressure of her hand passed from mine, and she had stolen from me, and was gone. But it was in an exultant mood that I rejoined Norwood and started for the pit. Certainly, Ada had not behaved as if moved by no especial emotion! Commonplace as her words had been, there had been feeling behind them—and when a woman regards a man with feeling, there still may be a chance for hope. So I meditated, as I slowly made my way across the ice-fields; while Norwood, I fear, must have found me a poor companion. For I spoke but little, and then only in monosyllables; and, forgetful of the approaching ordeal, I was occupied with thoughts of a pale, whimsically smiling face and two sparkling large blue eyes.

CHAPTER XIX

The Fissure in the Ice

IN THE beginning, our second descent proved a little more difficult than our first, since both Norwood and I were weighed down not only with our breathing apparatus and heavy heat-insulating suits, but with great coils of wire capable of unrolling in the form of ladders. Yet, although tottering beneath this burden, we had no vast difficulty in making our way to the twenty-four-hundred-foot level, where we paused to attach the steel ladders. This task, which occupied us for about five minutes, was accomplished easily enough, for the upper ends of the ladders clutched the balcony by means of stout hooks, reinforced by automatic safety clamps capable of resisting a pull of several tons; and all we had to do was to adjust the clamps by the pressure of a lever and to drive the hooks into the steel attachments previously prepared for the rope ladders.

But even after the ladders were securely in place, it required a vast effort of the will to persuade me to enter the abyss. The sheer circular walls, blankly descending until lost many yards beneath amid the yellow fog, filled me with panic—panic reinforced by memory

of my recent fall. And, at the same time, sly temptations whispered within me. How easy to return to the safe, known earth, reporting that progress to the floor of the pit was impossible! Or how easy to announce that we actually had gone to the bottom, and had found the fissure impossible to seal! In the tantalizing fraction of a second, these thoughts came to me; and, in that same fraction of a second, they were thrust angrily aside. Although my limbs shook, and my heart wavered, and my face no doubt was white with fear, I stepped out resolutely on to my wire ladder, while, reassured by the presence of Norwood on another ladder within arm's grasp, I began tentatively and slowly to make my way into the chasm.

How carefully and tremblingly I measured each step! How firmly my hands clung to the steel support, till they ached with the effort!—how anxiously I surveyed the rocky walls as, foot by cautious foot, I crept downward! What if Rathbone had miscalculated the strain upon the wire, and the clamps above should give way? What if my foot should slip, or my arms should fail me? Or what if, having reached the bottom, I should find my oxygen giving out or the poison fumes seeping through my mask? Harried by such imaginings, I made a most hesitant climber; while Norwood, perhaps immune to such fears, was rapidly outdistancing me, until his huge figure began to grow blurred in the fog beneath.

Down, down, down I took my snail-like course—never had I imagined that three hundred feet could be so long. I began to suspect that the real distance was several hundred yards at least; began to have visions of descending never-endingly through the misty abyss—when my thoughts were distracted by an alarming noise. Low and scarcely noticeable at first, it became shriller and harsher as I made my way downward, until it burst upon me in a continuous hissing as of a steam exhaust—a sibilance like the warning of serpents, like the mockery of fiends. For an instant, I stopped as if petrified; then almost immediately, as the cause of the sound occurred to me, I prodded my limbs into action once more, and continued my descent.

Within a few seconds, the bottom began to appear through the mist. Few details were evident at the first glimpse, since it was still many yards away; but just above the bottom I could make out a fountain bursting through the walls of the pit. Perhaps eight or ten feet in height, it shot upward from a tiny focus, like a stream of water from a hose—or, rather, shot upward and outward at an angle of about sixty degrees.

But there was one point which distinguished that fountain from any other I had ever seen. There was no downpour of water from its crest; its substance, having reached its peak, seemed to vanish into air! In a word, it was not a fountain of water! It was an eruption of vapor! It was, in fact, the jet of poison gas that had caused all our trouble! And this it was that had produced the hissing sound.

With that hissing growing constantly louder in my ears, I accomplished the remainder of the descent. And soon I joined Norwood at the bottom, where he was standing knee-deep in a viscid, oily substance which clung to him like thick mud.

But the thing that held my attention was not Norwood, nor the sticky fluid in which he stood, nor even the torrent of hot vapors that broke from the wall just across from him. He was pointing significantly to an object more than half buried on the floor of the abyss; and I, glancing at it intently, was not slow in fathoming its ghastly meaning. Although badly corroded, it had clearly the shape of a metallic water-tank—one of the tanks such as Norwood and I now carried. Here, then, was another clue to the fate of our lost comrades!

Grimly and silently, though the time at our disposal was very short, Norwood and I made a search. But there was little more to be found. One or two half-dissolved bits of metal—that was all!—and of the men themselves there was no trace. And Norwood and I, each shuddering a little and each afraid of coming across some more grewsome relic, were forced to conclude that the acids at the bottom of the pit had eaten away all that was mortal of our companions.

As we came to this realization, the fear flashed over us that, were we to remain here very long, those same acids would gnaw through our garments and devour us as well. That this was not a baseless dread we knew very well; hence we did not waste much time before turning our attention to the stern business that had brought us here.

On a mutual impulse, we drew forth our welding materials and waded toward the opening whence the vapors issued. After a quick examination, we were assured that our task would be less difficult than we had anticipated. The fissure was conveniently placed but a few inches above the cavern floor, and was narrower than we had hoped—was no wider, in fact, than a child's small finger! And yet it was through this small vent that the gases issued so tumultuously!

But when we set about to seal the crack, we found that our task was not as simple as it looked. Because of the tremendous force of the escaping fumes, it was impossible to melt the welding metals into the crevice so as to seal it, as we had planned. As well might one fling one's fingers into the ocean in order to stop the waves! Whenever we attempted to place the metal pieces into the fissure, our hands were blown back violently; while at the same time, despite the protection of our asbestos gloves, our skins were oppressed by a blistering warmth.

Were we, after all, without means of shutting out the gases? So, in my dismay, I wondered; yet Norwood, though he also was dismayed, did not mean to be defeated so easily. Signaling to me that he had another plan, he placed the welding materials in a little steel vessel with which he had provided himself, presumably for such an emergency; and to this vessel he attached the wires and coil intended for melting the metals. Having failed to inject the solid alloy, Norwood apparently intended to seal the fissure directly by means of the molten substance.

And this plan, it occurred to me, would certainly succeed! As I saw the coil heated to a glowing red and the bars of the alloy likewise assume a ruddy tinge, I felt that we were within touching distance of success. A few more minutes, and we could return to the outer world, our mission accomplished, the fortunes of our expedition redeemed!

BUT again over-confidence deceived me. As if to chide me for my sanguine thoughts, there occurred an event so sudden and terrifying that I came within an inch of collapsing on the cavern floor. At the moment of my greatest optimism, we were startled by a mighty flash of light and a thundering detonation; and, while I reeled and shook with fright, the echoes rumbled and reverberated dully in the abyss.

Almost as swiftly as it had occurred, this furious demonstration was over—a great wave of heat and an increasing mistiness seemed to follow in its wake, but nothing more. And the two of us, staggering backward and clutching at the rocky walls, were surprised to find ourselves uninjured.

What had caused the outburst? Not until much later did the explanation occur to me; and then it appeared so simple that I was ready to laugh at my alarm. The hydrogen produced by the decomposition of the water

in our tanks, I recalled, was released into the pit; and, being highly inflammable, it had united explosively with the oxygen of the air in response to the heat produced by the welding apparatus. But Norwood and I, being enclosed completely in our asbestos garments, had been more frightened than endangered.

Recovering from our consternation, we returned with redoubled energy to the work of sealing the fissure. The alloy having at last reached the molten stage under an intense concentration of electrical energy, Norwood lifted the glaring, sputtering vessel by means of long metallic handles, and with a furious effort forced a narrow, faucet-like vent through the opening in the rocks. And then began a battle royal. It was a conflict of the strength of man against the strength of the elements; the gases, like living things, hissed and sizzled warningly as the molten metal flowed down into the fissure; and so powerful was their pressure that I could see how every muscle in Norwood's body tugged and contracted as he braced himself and struggled to avoid being dashed backward. At the same time, serpent's tongues of escaping vapor shot in all directions, like streams of water diverted from the nozzle of a hose; and, accompanying the vapor, were terrifying spattering drops of molten metal, which flashed here and there like sparks of fire, one or two of them alighting on my garments and burning me painfully, through the holes they made. How Norwood managed to fight on in the face of such resistance is more than I know; but he did fight on, bending and lunging violently, as though straining to close a too-heavy door . . . until gradually the hissing of the gases grew less ominous, and their force had begun to weaken. And in the end, after every particle of metal had been poured from the vessel, the fountain of poison fumes shot upward with but half its former volume.

"Partly sealed, at least!" I reflected, realizing that the metal was even now solidified and was choking the gap. And, thus encouraged, I set about to melt our second and last supply of alloy, while Norwood leaned back against the wall with head bent low and sagging arms, like one incapable of further exertion.

But by the time the alloy was melted, he had apparently recovered. And without delay he set about to complete our task. Certainly, there was every reason to avoid delay, for we had outstayed our allotted time in the pit, and could not be sure how long our oxygen would hold out. . . . Yet at this crisis, for once, the fates seemed with us. The vapors, already greatly diminished in energy, gradually grew fainter and thinner beneath the application of the molten metal; the gaseous fountain was reduced rapidly in height from eight feet to five, and from five to three, and from three to a mere scarcely perceptible spurt. And finally, with a last sucking breath reminding me of the gasp of a dying man, the fumes faded out entirely.

At this realization of our hopes, Norwood and I drew back a step, staring at one another in an eager, inquiring manner. Had we actually triumphed over the dread gases? There seemed reason to believe so!—for only a slight dent in the rocks denoted the spot whence the vapors had arisen!

For a moment we gaped at that dent almost incredulously, wondering whether the gases were not about to burst their new-made fetters. Then, understanding the need for quick action, we poured more alloy into what remained of the crack; and after that, on a common impulse, we turned to the wire ladders, filled with a sudden urgent longing for the upper world.

But before we had reached the ladders; before we had even time to signal to our comrades above, there came a shock that nearly knocked us off our feet. Not a hydrogen explosion this time, but something fully as terrifying!—a swift, violent shaking of the earth, which made the whole abyss reel and sway like a storm-lashed sea. At the same time, low growls and grumblings, dull and muffled as if from the very depths of the world, caused our limbs to tremble even more than the trembling rocks. Was this but an ordinary earthquake? Or did it bespeak the fury of the pent-up vapors, which were convulsing the earth beneath us in their mad attempt to escape?

While these questions, still but half formulated, struggled to my mind, there came the most alarming manifestation of all. To our horror, the lights flickered and went out! And almost instantly, while we groaned in our dismay, they flickered once more, regained their full brightness, and vanished again. And, a second later, the whole eerie performance was repeated. Had we been in possession of our wits, we might have known that the earthquake had displaced the electric connections; but, tortured as we were by the weirdness and terror of the abyss, we were unable to grasp at any reasonable explanation. And so we shuddered, and our knees quaked beneath us as the lights wavered and snapped into blackness, then after a moment reappeared, then wavered once more and went out, like some tantalizing witch-fire. To both of us, cowering fearfully against the walls, it was almost as if some unseen, diabolical force hovered in the darkness, reaching out for us with fleshless fingers and taking delight in our torment.

Had there not been at least an intermittent illumination, both of us would have been lost. In the pitchy gloom, in which we might as well have been without eyes, we could not have made our way up the treacherous ladders and out to safety. Even as it was, we struggled upward with the utmost difficulty, pausing every now and then when blackness fell upon us, starting forward again when the unsteady, mocking light shook and flared about us. Never had I viewed a more uncanny scene—the long, circular shaft, at times coaly black, at times veiled in fickle, darting shadows, while the two of us, creeping along wires strung against the walls, moved at a snail's rate up and up, up and up through the gigantic abyss.

Once or twice, while the lights flickered with unusual capriciousness and we clung for very life to our slender supports, we seemed to feel the walls shake and tremble once more. As we lifted ourselves inch by inch through the oppressive gloom, terror had taken such hold of us that we could scarcely distinguish fact from imagination.

But it was not imagination that told us that our oxygen supply was coming more feebly. It was not imagination that gave us eventually the sense of suffocation, as though something stifling and heavy clutched at our throats and shut out our breath. Of a sudden we found ourselves wretchedly gasping, and at the same time our minds grew confused and dizzy; while, with a sensation like that of drowning men, we felt little save a mad, bursting desire for air. . . .

So blurred was my mind, and so painful the sensations in every limb and muscle, that I scarcely know when it was that we reached the top of the ladders. Finally, though staggering like one in a nightmare, I did gain the top, and, aided by the shuddering light, made out the bent form of Norwood beside me. And somehow, still like one in a nightmare, I stumbled behind him to the elevator entrance, heard him shut the door upon us, and, muttering deliriously to myself, knew that we were rattling upward. . . .

A minute or two later, each half supporting the other, we reeled out of the pit-entrance. Had we not snatched violently at our masks, tearing them off and admitting the reviving air, we would certainly both have collapsed.

As it was, though our heads remained clouded and dizzy, and our limbs a little uncertain beneath us, we began to feel restored to life. And at the same time, as our lungs drew in long, revitalizing breaths, we received a surprise that made us momentarily forget the horrors of the pit.

For a crowd of our fellows came rushing toward us with wild, excited cries. "Norwood! Rodney! We thought you were lost! We thought you were lost!" we heard them exclaiming along with a thousand less coherent things, as, in their eagerness and joy, they flung themselves upon us. "Why did you not let us know? Why did you not signal?"

Even as they spoke, I remembered that, in our terror, we had neglected to notify them before returning.

But in this forgetfulness there was some compensation. Otherwise, would a beaming-eyed woman have made her way out of the crowd, and taken both my hands heartily? And would she have cried out in an enthusiastic, self-forgetful burst: "Oh, I'm so glad you came back, Rodney! I'm so glad! You don't know how worried we all were!"

I felt that, for the sake of such a welcome, I would have endured the miseries of twenty pits. Nor was my joy mitigated by the sight of a glum, solemn-eyed figure who stood just behind Ada, eying me bitterly, as though aggrieved at my return.

However, I did not care; and as I walked away from the pit, with Ada on one side of me and Norwood on the other, while Rathbone joined us almost in an ecstasy of thankfulness, I felt that I had reached one of the crowning moments of my life. And though I was still very weak, and my head ached and my limbs tottered, I was well able to experience a triumphant thrill at Norwood's announcement, "No reason, Rathbone, to feel any more alarm about the pit. The fissure has been sealed, and work may now be resumed."

CHAPTER XX

Triumph and Privation

IT IS not surprising that Norwood and I had been regarded as dead men just before our escape from the pit, for our experience had seemed to parallel that of our ill-fated predecessors. No signal from us had been received after our arrival at the bottom, and more than an hour passed before our reappearance. And, during that hour, the earthquake had occurred, manifesting itself even more violently on the surface than in the depths; while the lighting apparatus had been disarranged above ground as well as beneath, and the furious efforts to put it in order had resulted in that flickering, spasmodic illumination which had tormented us on our climb. It was not until within a minute of our reappearance that the electric equipment had been readjusted.

So long were we gone that even the most sanguine had ceased to expect our return. But not even the most sanguine had foreseen that we would not only return alive, but would announce the accomplishment of our mission. Accordingly, there was double reason for rejoicing—and it may be believed that there were some jubilant moments in camp, with the more boisterous of us shouting our joy to the frigid skies, and the less demonstrative showing faces that smiled for the first time in many days. All that remained to be done was to remove the remaining gases from the pit by means of chemical solvents; and after that, as Norwood had declared, the interrupted operations might be resumed.

As a precautionary measure after our ordeal, Dr. Straub ordered Norwood and me to rest for a day or two. This we did readily enough, since after the enthusiasm and excitement of our return, we were again near to collapse. But the day or two had drawn out into three or four, when at last the physician announced that we were fit for work again; and, by that time, the activities in the pit had been vigorously renewed.

As if to make up for the lost weeks, Rathbone now began to push his operations with unprecedented speed. Reducing the working force at the power-plant and the foundry, he assigned every available man to the pit; and, in order that there might be no cessation in our labors, he hit upon the plan of working the men in three shifts, as a result of which there was never a moment—except on our one weekly holiday—when the pit was idle. And, in consequence of such adroit generalship, the bore increased in depth at an astonishing rate—from twenty-seven hundred feet to thirty-six hundred, and from thirty-six hundred to forty-two hundred, and from forty-two hundred to forty-eight hundred, until at length, amid general rejoicing, we were able to celebrate our arrival at the one-mile mark! Five thousand two hundred and eighty feet!

Meanwhile the elevator shaft had almost kept pace with the pit. Since we had no cable that would safely lift a car a mile and over, we hit upon the plan of building several elevators, each occupying the same shaft at different levels, and each capable of a maximum lift of twenty-four hundred feet! The cars themselves were turned out easily enough in the foundry, and there was no difficulty about taking them in segments to the desired level and then putting them together and installing the steel cables and electric operating gear.

As the depth of our excavations increased, there was one fact which we all observed with intense interest, and which some of us interpreted favorably but others regarded as ominous. The rise in temperature as we descended was amazing. And the rate of that rise showed no sign of falling off with the deepening of the pit. When we had reached the one-mile point, the gain in temperature was one hundred and thirty-four degrees! In other words, we had maintained an average of about one degree for every forty feet—a figure from twenty-five to fifty per cent greater than any of us had anticipated! From the more obvious point of view, this was reason for thankfulness, since, if the same increase continued, we would have less than another mile to dig! But, from another and equally valid point of view, there was cause for concern, for might not the overheated rocks beneath us be brewing some fresh trouble?

Vast though the gain in temperature at the depth of a mile, it had not become impossible to work at that level. The average reading at the surface was now about forty degrees below zero—which meant that the thermometer one mile below the surface registered only the heat of a summer's day. But this also meant that we were able to undergo all the extremes of the seasons within the range of a few hundred yards—and that men who, above ground, were grateful for heavy fur clothing, worked below ground with bare arms and shoulders, and with perspiring chests exposed.

When we had reached the mile level, a slight delay in operations was occasioned by the installation of an apparatus designed to serve a double purpose. The first was that of ventilation; for, despite the use of electric fans, the air in the pit was becoming unbearably dense and stagnant as we drew away from the surface. The second object was that of cooling, since the heat had now passed the limits of comfort, and threatened to become increasingly burdensome and finally impossible to withstand. As a partial remedy, the asbestos garments would enable us to endure temperatures beyond the ordinary; but even they would

not suffice, since our excavations must continue until we had reached the boiling point of water. At such a temperature, obviously, no man could survive; consequently, the pit must be kept well below that temperature until we had installed all pipes, boilers, and other necessary apparatus.

This end could be accomplished by a simple device, which at the same time would provide for ventilation. From the beginning, as he had mentioned long before, Rathbone had planned to force cool air into the pit; and he set about to achieve this purpose by means of a system of pipes and electric fans, which drove the surface air into the abyss at a rate regulated either from above or from below through a series of conduits with valves and of automatic exhausts. Thus we were not only assured a supply of fresh air no matter what the depth of the pit, but were protected from a heat that would otherwise have roasted us alive. Furthermore, since we could exactly control the amount of air to be admitted, we could work at any temperature that we preferred.

By the time that the pit had reached the one-mile level, the worst of the winter was over, and already a touch of pale grayish light, appearing each noon at the southern horizon, betokened the approach of brighter days. As yet the sun was not visible, nor was it to be visible for a considerable time to come; and though the feeble illumination scarcely deserved the name of twilight and was not to be observed at all on days of cloud and storm, still it did send a glow of encouragement to the hearts of us all, for the unremitting darkness had been telling more heavily than we knew upon our spirits.

THERE was a second reason—and a more compelling one—which made us anxiously anticipate the return of the sun. As the winter drew toward its close, we experienced that scarcity of provisions which we had long foreseen. In order to make our meager supplies hold out as long as possible, Rathbone was forced to reduce us all to half rations—or, in other words, to hunger rations, for there was not a man in camp who did not feel as if a wolf were gnawing within him. We had enough, it is true, to keep soul and body together, but not enough to save us from growing gaunt and drawn, with lean, weakened limbs, and pinched faces from which the bones began to protrude. And the result was unfortunate in a score of ways. Not only did most of us become miserable, bad-tempered and ravenous, with something of the disposition of prowling beasts; not only did we grow capable of fighting over a crust of mouldy biscuit, or of scheming to snatch a piece from a neighbor's plate; not only did visions of food begin to dominate our days and nights, but our practical efficiency was greatly weakened, so that some fell into long illnesses, from which they were rescued only by the skill of Dr. Straub and the attentive nursing of Ada; while those of us who were not actually sick were incapable of performing our former amount of work. During this period, as might be expected, the operations at the pit progressed but slowly; and after the strenuous spurt by which we had reached the mile level, we began to move by inches and half-inches. So slight, indeed, was our advance that Rathbone would look grim and sorrowful whenever anyone questioned him, and would try to avoid a direct answer.

Although every man in camp was suffering, it was Rathbone who endured the most. I could have seen that from his haggard, lined face, and from the rapid graying of his hair; he had aged more quickly than any person I had ever known; and whereas, a year ago, he would have passed for thirty-two or three, he had today the worn, strained look of an overworked man of fifty. "I'm afraid this task is telling upon me, Rodney," he said one day, in one of his rare confidential outbursts. "Of course, I still feel that we will win through in time, but the cost will be greater than I had figured."

Particularly was Rathbone depressed during the period of famine. He felt, I am sure, a helpless despair to see his followers suffering and failing; and he was grieved at the resurgence of primitive emotions when the men, like greedy children, would grumble at the provisions doled out to their neighbors; or when several of them, by guile or intimidation, strove to secure more than their share from the Eskimo woman who was the storekeeper. Most of all, Rathbone was dejected by the attempts at theft, one or two of them successful, by which some wily individual managed to secure more than his proper ration; and his anger was all the greater since the culprit was never apprehended, although we did have a shrewd suspicion of the man's identity.

"Let the thief beware!" I remember Rathbone exclaiming, at a meeting which he ordered us all to attend. "His crime is aimed at the life of every one of us. Hence I counsel you all, out of self-defense, to be on the lookout for him. If he is caught, he will be made to pay. And he will be caught, I promise you, if his offenses continue!"

Was it merely by chance that Allenham winced and blanched as these words were uttered? Was it merely by chance that he averted his eyes, and, with fingers tapping nervously against his knees, pretended a tremendous unconcern?

I shall not attempt to say, for the evidence is not conclusive, although once or twice Allenham was said to have been seen nibbling scraps of food, the possession of which he was unable to explain. Yet it is significant that, from the time of Rathbone's warning, there were no more thefts.

But it was because of this incident that I committed a blunder that was long to fill me with regret. Chancing to come across Ada at about the time of Rathbone's meeting, I made a casual and unpremeditated remark—yet one unquestionably charged with hidden malice. "Been seeing much of Allenham of late, Ada? Surprising how sleek and well fed he's been looking!"

It was as if I had launched a bullet at her heart. She recoiled from me, her hand uplifted protectively to her breast; while from her eyes there flashed such sparks as I had never imagined possible in her. And as I stared at her in astonishment, already half realizing my error, her words came forth harshly and bitterly. "Rodney! What do you mean by that?"

"Why, I—you know what I mean," I stammered, much taken aback.

"Yes, I do know!" she fumed, her nostrils dilated, her cheeks blazing. "And I think it's unworthy of you! You're prejudiced against Allen, and you're saying mean, cattish things! It's unfair of you! It's despicable! Poor Allen has had a hard enough time up here as it is. I know he isn't brave like the rest of you—but he wouldn't do what you accuse him of. Why, he wouldn't—couldn't steal the bread from our very mouths!"

And her foot, as if to reinforce her contention, stamped angrily against the snow-covered soil.

"But I didn't say he did anything wrong!" I protested. "I didn't! Listen, Ada——"

But she would not listen. Before I could complete my words, she had turned her back upon me, and in the manner of one who fights against threatened sobs, had flung herself toward her house, while I followed, loudly exhorting, desperately pleading, but all to no avail.

And after the door had closed upon her, and I found myself staring blankly after her vanished form, I was in a state of mind to throttle Allenham, had he been so obliging as to appear at that moment.

CHAPTER XXI

A Flash from the Unseen

DURING the days that followed, I saw little of Ada. Now and then, it is true, I did encounter her passing with Allenham; but, on such occasions, she would merely nod to me in a formal, distant way, while he would greet me dèmonstratively, and smile a bland, triumphant smile that tempted me to violence. All my efforts to reinstall myself in Ada's good graces were coldly rejected; her old air of cordiality was gone, and I, fruitlessly racking my brains for the remedy, was forced to conclude that she no longer regarded me as a friend.

But why did she continue to hold Allenham in such favor? Could she not see the baseness, the cowardice of the man? Did she really believe my insinuation against him unfounded? Or had she struck back at me because, subconsciously, she wished to protect herself from believing the accusation? Whatever inklings she may have had of the truth, it seemed certain that she would permit nothing to interfere with her rose-hued conception of the man.

Although that thought drove me almost to frenzy, there was nothing I could do. And meanwhile time and chance must work out her fate, and the fate of us all. Fortunately, I had slight leisure to brood upon the matter; there was a stern duty confronting me; and to that duty I devoted every particle of my energy.

For Quin and I, with our team of half-famished dogs, were among those assigned to the crucial task of replenishing our food supplies. With the advance of the season, we had the advantage of an hour or two a day of twilight, during which hunting conditions were comparatively good. But this hour or two, of course, did not suffice, and we still had to make many a midnight excursion across the ice. We had no new terrorizing adventures, however, and were never again lost on the frozen sea; for Rathbone, warned by experience, had adopted a new method; and rockets, sent up at regular intervals above the settlement, guided us unerringly on our way.

At first our luck was poor; there was not even the sign of game. And at first, half fed as we were, we were never out of touch with despair; and gaunt pictures of starvation hovered constantly in our minds. Then one day, in the waning half-light, Quin stole up upon a seal that had ventured incautiously out of its blow-hole; and, having speared the animal, rescued it with great difficulty from the icy waters. Here was at least a morsel to ward off famine! Somewhat later, Quin succeeded in shooting a walrus which, to our dismay, sank and was lost before we could recover the carcass; but only a day or two later we came upon a herd of six or eight walruses upon the ice, and succeeded in dispatching the entire lot. So much of a savage had I now become, that I took an exultant, raving joy in the slaughter, somewhat like the joy of a blood-maddened beast; and not one twinge of pity or regret did I feel for the great creatures, who, with tusked heads upreared majestically, barked and snorted their defiance, or writhed and groaned like suffering humans as their life-blood made red the snow. In a quick, frenzied, insanely joyful manner we launched

But only a day or two later we came upon a herd of six or eight walruses upon the ice—ready game

and completed the attack; and all my fellows, I am sure, shared in our feelings when they heard the news, for all of them burst into loud cries of thankfulness and acclaim. Here was food in plenty, food for man and dog alike; food that would last for many days, and relieve us temporarily from the need for half rations!

And thus, while hardly realizing it, had we returned to the state of our prehistoric ancestors, who no doubt had burst time after time into wild celebration above the carcass of cave-bear or mammoth, pursuant to that great red law by which life preys upon life in order that life may endure.

As time went by, it became apparent that our victory over starvation had been more than momentary. Before the walrus meat was exhausted, an eight-foot polar bear was captured; and later, with the advance of the season and the increase of the daylight, our hunting expeditions began to follow with regularity, and occasionally we managed to shoot a seal or a narwhal. Accordingly, while never many paces ahead of famine, we passed the succeeding months without renewing our acquaintance with hunger.

But, in one respect, the apparent gain was a disadvantage. With the reviving strength brought by a sufficiency of food, the men had once more the energy to complain—and mutterings and laments became frequent, though usually expressed only in the undercurrents of conversation. "Why did we ever come out to this God-forsaken hole?" the men would ask, ready to curse their own lunacy. "What do we care about reclaiming Desolation Isle? What we want is to get home!" And since, at present, home seemed as far away as the moon, they began to revile the man whom they regarded as the cause of their misfortune; and again there was talk of revolt, and even of attempted escape from the island. To the better balanced, the fantastic nature of all such projects was apparent; yet there were those who would not allow sober facts to interfere with their schemes; and rumors came to my ears that, were we not rescued by the following autumn, some of the men would attempt a retreat across the ice. Of course, I did not take any such reports seriously, since I believed that even the most reckless would think twice before courting death on the terrible white solitudes. The plots even appeared slightly comic to me when I learned that one man, my arch-enemy, was again conspicuous in the camp of the rebels. Did he then plan to race for safety across the frozen sea, leaving his fiancée to her fate? Or would he try to induce her to betray her brother? The latter aim, I knew, would be impossible to accomplish; the former would show him only too plainly in his true colors; hence I chuckled just a little at the thought of Allenham's dilemma.

Meanwhile Rathbone, disregarding the tidings of dissension that no doubt were coming to his ears, was undertaking in his own way to achieve our rescue. For many months, in the occasional moments snatched from more pressing duties, he had been experimenting in building a radio. The task was far from easy, for, while we had electrical power in plenty, it was necessary not only to manufacture most of the essential equipment, but to devise a transmitter of exceptional range, and a receiver of rare sensitivity. But Rathbone, with his usual ingenuity and patience, set about to solve problem after problem, and by degrees, without the knowledge of any of us, he was advancing toward success.

THE eventual announcement came in the way of a surprise to us all. I believe that this was a sort of trump card which Rathbone was holding in reserve, and by means of which he meant to answer the murmurs of the rebellious. At all events, he had sufficient sense of the dramatics not to let anyone into his secret—no one, that is, except possibly one or two of his scientific assistants. The rest of us did not even suspect what he had in mind, when he called us to one of the meetings, which were now becoming a habit with him. While it was known vaguely that he had been experimenting with a radio, still no one imagined that he had advanced beyond the preliminary stage; and it was the general view that Rathbone's object in summoning the meeting was to exhort us all to greater efforts, or else to remonstrate with us for the undercurrent of disloyalty.

For this reason, most of us were rather startled upon our arrival at the meeting-place. For the room held several objects of a totally unexpected nature. One of them was a round, disc-shaped metallic contrivance which we recognized as a microphone! And another was a long metallic box connecting by wires with a huge steel horn—a radio receiver and speaker! And other wires, reaching from all the instruments, stretched along the floor and walls and out through the ceiling, indicating clearly the erection of the aerials. Rathbone's explanation now seemed merely superfluous—it was evident that he had constructed a complete radio set.

Yet the actual demonstration contained still further surprises. "The machine before you," stated Rathbone, after a few preliminary remarks, "will be useful both for practical purposes and for pleasure. First, as to pleasure. I will have extensions erected in all parts of the settlement, and thus the voice of the whole world will come to you. Shall I give you an example?"

I am afraid that most of us looked incredulous; but Rathbone, with a confident smile, turned to the receiver, shifted a switch, turned a dial or two, and after a minute, to our joyous surprise, we were listening to the strains of a jazz orchestra!

"I do not know what station this may be," stated Rathbone. But, as if in answer, there came the announcement, "Station KLI, Vancouver!" And in quick succession, we heard from other Pacific Coast broadcasters; and then, in much fainter tones, and with a tendency to fade out entirely, there sounded three letters I had often heard before, "Station WJZ, New York City."

All of us, of course, were already familiar with the wonders of the radio—but never before had they impressed themselves on us so clearly! Here we were, marooned in the Arctic, separated from friends and kin by hundreds upon hundreds of impassable miles—and yet we had actually heard from home, were actually within speaking range of that civilization which still remained physically unattainable!

Upon that demonstration of almost uncanny powers, we were all a little awed; and, though we burst into murmurs of surprise and delight, we were unable to manifest our feelings more jubilantly. We listened with breathless attention as Rathbone went on to explain, "You can now begin to see the possibilities of our radio. It will be valuable, as I have said, for purposes of pleasure, and also to give us news of the world, with which we have lost touch for so many months. But it has a still more important function. By this time, beyond a doubt, our friends at home have given up all hope for us, for no word has been received since the destruction of *The Pathfinder*. But when it is learned that we are still alive, a rescuing expedition will no doubt be dispatched to Desolation Isle. Those of you, who are tired of life here will then have the opportunity to leave; while the rest of us will receive new supplies of food and other necessities. Thus, I believe, our success will be guaranteed."

Rathbone paused, and a momentary hush fell across the gathering. Every face shone with pleasure and relief; every eye radiated hope; the rejoicing of the men seemed almost audible, although no word was spoken.

"How soon will it be? How soon will we be rescued?" finally rang out an eager voice.

"You're just a little hasty, aren't you?" returned Rathbone, with a smile. "We can't expect to work things out in a moment. At the earliest, it seems to me, no rescuers could arrive here before July or August, after the ice has broken up."

"But that's four or five months yet!" groaned someone in the audience.

"Yes, four or five months," affirmed Rathbone. And then, his face temporarily darkening, he announced, "But before we begin to lay plans, we must get into touch with civilization. And we haven't done that yet. I've already operated our transmitter, sending out messages on a short wave-length capable of carrying for thousands of miles. But there has been no evidence that anyone has heard us. Of course, I have made but very few attempts, and probably the interference of less remote stations will account for our failure. But I intend to continue until we succeed—as eventually we must."

"Why not make another trial right now?" someone shouted.

"Why not right now?" came a score of eager echoes.

For a moment Rathbone eyed his followers doubtfully. "Yes, why not?" he suddenly decided. "Everything is in readiness. It's easy enough to attempt."

A few moments later, having made one or two necessary adjustments, he was shouting a message into the microphone.

"S. O. S! The Rathbone Expedition! Party of thirty-eight men and three women marooned on Desolation Isle, in the Arctic Ocean! Our dirigible has been destroyed, and our provisions are running low! . . ."

Not half a minute after Rathbone had finished, there came a vague murmuring in the radio speaker—so faint that, although we strained our ears, we could make out nothing.

"Seems to be only static!" someone murmured, in disgust. But Rathbone motioned us to silence, clapped on a pair of ear-phones, and listened intently.

A long, long minute dragged speechlessly by. Then, slipping the ear-phones from him, Rathbone turned to us with as exultant a look as I have ever beheld on the face of any man. His hands were trembling; his excitement was such that he seemed stricken speechless, and could only stare at us imbecile-like, while his mouth opened futilely, and he stammered something quite unintelligible.

But after a brief pause his composure returned, and he addressed us in low, meaningful tones. "The Steamship Empress of Columbia, *en route* across the Pacific, has caught our message. We will now have no difficulty in keeping in touch with civilization."

CHAPTER XXII

Great Expectations

FROM the time of that memorable first radio message, we had almost the feeling of being restored to the world. We were never afterwards to be out of touch with civilized lands; the interchanges between us were to be daily affairs, and we were not only to "listen in" on many general broadcasts, but were to receive frequent communications aimed specifically for us. It was not long before our story, reported in detail by Rathbone, had been flashed to cities all over the northern hemisphere; it was not long before we had become objects of wonder and shocked comment for every housewife and worker in Europe and America. The newspapers—or so, at least, we were informed—bore front-page accounts of our adventures, the magazines were filled with articles depicting Arctic conditions, scientists were weighing and debating the obstacles ahead of us, while excited speculations and startling rumors everywhere filled the air.

But more important than all this was the fact that plans for a rescuing expedition were being agitated. At first, it is true, those plans did not proceed rapidly; yet before long they began to gain momentum. The original idea was that a steamer be dispatched to Desolation Isle as soon as the ice had broken up; but students of Arctic conditions were not slow to point out the impracticability of this scheme—Desolation Isle, they argued, lay in waters never yet navigated, and it was highly doubtful if any steamer could reach the island without being crushed by the drifting bergs and floes. What, then, was to be done? The next suggestion was that the passage be made by airplane, but this idea too was generally rejected—for not only would the flight be hazardous in the extreme, but no airplane could carry us provisions enough to be of practical value. There were, as it happened, any number of daring young pilots who proclaimed themselves eager to make the attempt, and even some wealthy volunteers who were ready to supply the necessary capital; but it was Rathbone himself who crushed the scheme by proclaiming that he wished no lives to be risked needlessly on our behalf.

A month or two dragged on, and a hundred half-formed rescuing projects were reported to us. But they all lacked definiteness; and, since we were known not to be in imminent danger, it seemed impossible to foretell the probable length of the delay. In the end, I believe, some yacht or whaling schooner would have been fitted out, to enter into a desperate and possibly fatal contest with the frigid seas—had not a more attractive and feasible plan finally come to light. A committee of scientists and influential citizens, interested in the success of our expedition and admiring the originality and courage of our leader, had addressed a petition to the United States Naval Department, pointing out that Desolation Isle could most easily be reached in the manner that we ourselves had reached it, and requesting that the recently constructed Zeppelin *Susquehanna* be sent to our aid. At first the Department was reluctant to agree, for the dirigible was a huge and costly affair, and high officials were justifiably hesitant about risking the ship and its crew. However, the voice of public opinion was loud, and newspaper appeals and the thunders of public speakers added vigorously to the pleas of the petitioners: so that at length the Secretary of the Navy, still with confessed misgivings, was induced to concede the point, and to issue the order that was like a charter of freedom for us weary waiters on the island.

So slowly did events move that it was the middle of May by the time this order was signed. Even so, however, the rescuers were not to set out for the better part of three months. For it would be necessary to make some repairs and readjustments in the dirigible before it was permitted to make the long Arctic cruise; and, at the same time, traveling conditions would be more favorable early in August, when the ice had broken up and the weather was at its mildest. Besides, there were many arrangements to make about the provisions to be conveyed to us; and this in itself would involve a considerable delay.

It would be impossible to describe the rejoicing in camp at the announcement that *The Susquehanna* was

coming to our aid. It seemed incredible, inconceivable, yet the facts were undeniable: those of us who wished might soon leave for home, while the rest of us need not fear for the coming winter! Immediately a new atmosphere became apparent about the settlement, a gay and festive spirit that dispersed the gloom of months; one heard songs on the lips of men who had never been known to sing before, while some, who had been grim and moody, would laugh and jest in the merriest manner imaginable. Only one topic of conversation was now popular; only one thought was prominent in anyone's mind; and not the least enthusiastic of our activities was to level down a landing field and set up a mooring mast, where the dirigible might alight and tie up with ease and safety.

Yet our enthusiasm overflowed to many activities. The men in the pit and the power-plant, as well as those about the settlement, took a new interest in their work; it seemed as if they were more anxious than ever before for the success of Rathbone's plans; one and all, they had ceased to grumble, but labored with that will which comes of contentment and hope. Besides, as if to lend impetus to our happy mood, the darkness of winter had slipped from us, and the months of sunshine had arrived; the daylight hours had expanded rapidly, until at length they embraced the entire twenty-four. Although Desolation Isle was still a sheet of almost unbroken white, and the seas were still thick with ice, occasionally a deafening booming and thundering foretold the breaking up of the pack; and to all of us, released from the depression of the long night, it was as if the frozen sea and land did not exist; as if summer, with her bird-songs and flowers, was already blossoming about us.

During this period, the work in the pit was once more progressing at an encouraging rate. Owing to the increasing depth, and to the time and labor involved in pumping out the waste products, more than a mile to the surface, we could not expect to advance at our former speed; yet within a few months—in fact, well before the scheduled arrival of *The Susquehanna* we had reached the mile-and-a-half mark, and were working at a depth which would have been impossible without the cool air that Rathbone forced in torrents into the abyss. For the extraordinary increase in temperature was still maintained; and a thermometer, buried in a crevice in the rock at a depth of seven thousand eight hundred feet registered 162 degrees Fahrenheit! At that rate, we should have less than another half mile to dig in order to attain our objective! Already we were within grasping-distance of reclaiming the island!

Yet there was one thing that worried Rathbone during those days of apparent hope. How many of the men would leave after *The Susquehanna* arrived? Although they had all signed two-year contracts, Rathbone knew well enough that he could not detain them against their will; and, besides, he regarded it as poor policy to urge them to stay if their hearts were elsewhere. Hence he considered it possible that the men would depart *en masse*, leaving us without an adequate corps of workers. Upon certain of us, it is true, he relied; upon Norwood, and Kenworthy, and McDougal, and myself; but, in view of the grumblings of the others, he could not be sure that there would be even a handful left for the second winter's work. "If ten men go, or even fifteen, Rodney," he summarized for me one day, as the climax of a long discussion, "it is possible we will be able to get along. At a pinch, we might manage if twenty leave, although that would slow the work down very much. But if more than twenty go, we might as well suspend operations. And, judging from the way everyone has gone wild about *The Susquehanna*, I shouldn't be surprised if thirty or thirty-five should want their tickets home. My chief hope is that the dirigible won't be able to accommodate that many."

"Never fear," said I. "When the time comes, most of the boys will be glad enough to stay."

But I spoke without conviction, for I had heard with what longing and what enthusiasm the men had been painting pictures of home. And I also knew how one of their number, Allen Allenham by name, had gone among them, planting sly suggestions of the peril of remaining and of the allurements of civilization, and urging that they make their departure unanimous as soon as *The Susquehanna* arrived.

FORTUNATELY, however, there were several forces acting against Allenham. For one thing, he was not popular with the men, and also another, there were few who took him seriously. Norwood and I, without Rathbone's knowledge or consent, were quietly going about among the men, pleading now with one and now with another, and urging in every possible way the advantages of remaining. And the third influence that favored us was a peculiar yet thoroughly human twist in the psychology of the men. When they had been hopelessly bottled up on Desolation Isle, they had been filled with an irrational, panicky desire to leave, somewhat like the desire of rats to forsake a sinking ship; but when the barriers had been withdrawn, and the way to the world appeared once more open, their panic had left them, and Desolation Isle did not seem quite so forbidding any more.

It was largely by means of the power of example that Norwood and I worked upon the minds of the men. We lost no time in spreading the news that he and I were determined to remain; similarly, we spread the tidings that Kenworthy and McDougal were to stay; then, after an interview with Dr. Straub, we let it be known that our physician was not to desert; and after that, having coaxed from one or two of the workers a hesitant promise not to leave, we took pains to circulate the names of the faithful, along with fitting words of admiration and praise. And in time these tactics began to take effect. Whether among city towers or in the wilds, man is at heart an imitative creature; and there on our island the example of the few was no less persuasive to the many than in the most cut-and-dried community. Once three or four workers had given their pledges to remain, the movement gained irresistible momentum, and others began rapidly to follow their lead. Not, indeed, that their actions were wholly imitative; they did actually obey an inner impulse; for, in spite of hardships and privations, they confessed to feeling an exhilaration in the tingling air and in the sheer primitive savagery of our island.

Long before the expected arrival of *The Susquehanna* more than half of the men had announced their intention to remain. Ten or fifteen, it is true, were still recalcitrant; yet we now knew that, barring a last-minute reversal of opinion, we should have workers enough for the coming winter.

Among those who continued eager to leave was Allen Allenham. He made no secret of his intention to forsake us; and I am sure that, whatever the faults of the man, he was sincere in proclaiming his hunger for civilized shores—sincere, also, in stating his belief that Desolation Isle was "no place for a white man." Among the advantages of the arrival of *The Susquehanna*, I accounted the fact that it would remove his disturbing presence; but, at the same time, I was left a prey to certain vague doubts and wonderings. What of Ada? Would he coldly desert her? Or would he be compelled, against his will, to remain with her on the island? Or was it that he expected to induce her to play the truant with him?

At the latter thought I smiled just a little, so fantastic did the idea appear. Yet there came a time when I began to ask the question a little more seriously. For one day, chancing to meet Ada in front of the settlement, I had an interview of an unexpected nature. Of late, I had not been on anything like intimate terms with her, and a few brief and colorless interchanges had been all I was able to manage; none the less, she did pause on this occasion, and even deigned to smile; while I, surprised and delighted, imagined that she was willing to resume friendly relations.

Yet her first words did not reassure me. "I have just been talking to Allen," she said. "He seems bent on returning on *The Susquehanna*."

"I know that," I returned, with a frown. "And I don't see what's to stop him."

"Neither do I." She hesitated, and her face dimpled faintly; while an elfish light played about the wide blue of her eyes. "But that isn't all. He wants to take me back with him."

"Yes, I might have known that!" I replied. "What he really wants is to take the whole camp back! But, of course, Ada, you're not going."

Again the hesitation in her manner was perceptible; and again I noticed that elfish glitter about her eyes.

"Well, why shouldn't I go?" she demanded.

I stared at her in shocked astonishment. "But, certainly, Ada, you're not going to desert Stephen!" I blurted out.

"Of course not! But I wouldn't be deserting him. Why, he himself has been urging me to leave. He says he doesn't believe Desolation Isle is the proper place for a woman—in fact, he always did say just that. He couldn't help noticing how tired I'm getting of things here; and he insists I'd be much better off back in civilized surroundings. All I accomplish now—though he didn't say that—is to make away with food, which may be badly needed before another winter goes by."

I uttered a sharp denial; but Ada, as if not hearing me, went on to remark, "Really, what good am I on this island? Most of the time, I'm only in the way. I have no regular work, and it would prove a relief to most of you if I left."

"Indeed it won't be!" I exclaimed, fervently. "Why, Ada, who's been putting such nonsense into your head? You can hardly know how much your presence has meant! You have been a blessed angel to us all! There never was a more wonderful nurse! I, for one, know that I wouldn't be here now, if it hadn't been for you!"

"Why, Rodney, who's been putting such nonsense into your head?" she flung back, mockingly. "And, anyhow, what has all that to do with my going away?"

But, as she spoke, her eyes shone with a twinkling, impish light; and I had the sudden sense that she had not meant quite what she said, but, in some subtle, feminine way, had been trying me out.

Before I had had the chance to confirm this impression, however, there came an annoying interruption. Even as I opened my mouth to reply, I felt a heavy hand descending on my shoulder; and, in a thin, squeaky, well known voice that I detested, there came the inquiry, "Well, old fellow, how goes it?"

"Have you heard the news?" continued Allenham, as I swung about angrily. "*The Susquehanna* has been ordered to leave its hangar in Washington on July 30th! It will be here several days before we expected it!"

"Oh, any time it gets here will be soon enough for me!" I replied sullenly.

But Allenham, ignoring my remark, turned to Ada with a smile. "I was just on my way back to work at the pit. Suppose you stroll over that way with me?"

"Why, yes, if you wish, Allen," she agreed, sweetly. "You'll excuse me, of course, Rodney?"

And, with a farewell nod in my direction, she took his arm, and was gone.

Idiotically I gaped after the retreating pair, a prey to conflicting passions. Above all, I felt again the old savage desire to spring upon Allenham, to pound and pummel him into a bloody pulp. But, contrasting with this mad impulse, a softer and sadder emotion struggled for mastery of me. What if Ada had indeed been in earnest about intending to leave the island? Might not the combined pleas of Allenham and her brother in the end prevail upon her?

CHAPTER XXIII

The Rescuers Draw Near

DURING the months preceding the coming of *The Susquehanna*, we were so busy that we scarcely had time to notice the changes in the world about us, the melting of the snow on the tundra, the breaking up of the ice on the sea, the appearance of the gray fields of lichens and of occasional green patches of grass, the sprouting here and there of some blue or golden wildflower, whose gay colors seemed to flaunt defiance at the stern gods of the north. Gradually the summer was returning, and the temperature, at ten or twenty degrees above freezing point, seemed to us well-nigh tropical by contrast with the wintry rigors we had endured; while the unbroken daylight was a source of unceasing cheerfulness after the terrible months of darkness.

Our activities, during those days of revived hope, were by no means chiefly confined to the pit. For one thing, Quin and I and several of the others were vigorously engaged in hunting, and made expeditions to the far corners of the island; and the surplus meat, of which there was a moderate amount, was carefully dried and put away for the winter. For another thing, the coal mine was being operated with more energy than ever before—now that the electrical supply from the ice-pack had temporarily ceased, Rathbone was securing power by burning the black mineral. And, beyond that, the rails were being laid for the electric road between the settlement and the power-plant; and steel sheds, enclosing the tracks on both sides and above, were being installed as a protection against blizzards.

But there was still another activity in which Rathbone was engaged—and one destined to outrank all the others in importance. Convinced that progress by means of dog-teams was too slow and precarious, our leader began to ponder the possibility of finding a more rapid and scientific means of crossing the icy wastes; and after a time he conceived an idea which, while frowned upon at first by Norwood and other Arctic specialists, seemed to most of us to be of high practical value. The question, as we all realized very well, was to secure a power-driven vehicle capable of negotiating not only the smooth, hard surface of the snowfields, but the unpredictable irregularities of the sea-ice, the folds and hummocks and the terrible projections of the pressure ridges. Obviously, no wheeled conveyance would suit the purpose, and, quite as obviously, some sledge-like arrangement appeared to be inevitable; but it was difficult to see how a sledge could be driven by mechanical means—unless, indeed, by clumsy moving projections corresponding roughly to the oars or paddle wheels of vessels. At this point, where the imagination of most of us struck a blind alley, Rathbone conceived the saving idea. Remembering the armored "tanks" which had been used in the World War, and which had traversed the roughest and most broken territory, Rathbone proposed the manufacture of machines equipped, like the "tanks," with

heavy chains of traction shoes driven by wheels. Propelled by the power of electric storage batteries, such a contrivance would traverse regions inaccessible by any ordinary means of transport, and would prove a safe and certain carrier whether on the level or over mounds and ridges of ice.

But one objection, which was urged from the first, was that such a vehicle would be too heavy for practical purposes—too heavy to be used on newly formed sea-ice. This difficulty Rathbone recognized from the beginning; he readily admitted that steel or iron would be too ponderous. But this drawback did not impress him as fatal. There was another and lighter metal available—a metal that answered perfectly the objections of the critics. It may have appeared providential, but it really was owing to shrewd forethought that Rathbone had salvaged the wreckage of *The Pathfinder*, and that the metallic fragments, accumulated on a headland above the scene of the disaster, stood waiting to serve us in our need. Here was an alloy which had been specially prepared both for its lightness and for its tensile strength—accordingly, it was a material that might have been made to order for our present purposes. A tank built of this substance—or an "ice-cruiser," as we called it—would not be too heavy for ordinary uses, would have a wide traveling range, and should be able to carry several persons in its cabin, as well as to haul a train of sledges laden with men or provisions.

With such thoughts in mind, Rathbone made a small model of his invention, and at the same time, in high enthusiasm, ordered parts of the wreckage of *The Pathfinder* to be taken to the foundry, where, by virtue of the high temperatures which our discovery of coal made possible, they were to be melted and to re-appear in the form of the wondrous new vehicle. Thus, he thought, he would solve the problem of Arctic travel more successfully than had any former explorer.

There were those who, in the light of subsequent events, were to maintain that Rathbone had concealed his real object in inventing the ice-cruiser, and that it was designed for a more essential purpose than he admitted. For my own part, however, I do not believe that Rathbone had any concealed motive, otherwise his preparations would have been more thoroughgoing. It is barely possible, indeed, that some shadow of our approaching need did flash across his vision, urging him to precautions whose necessity he himself did not understand. . . . At all events, it is certain that a day was to come when we were to clutch at Rathbone's invention in sheer desperation.

But that day, let me repeat, could not have been foreseen by Rathbone any more than by the least far-sighted of his fellows. I would swear that my friend was disturbed by no dismal anticipations when from time to time he entered the foundry and saw his new creation take form. Indeed, he always seemed to regard it with a light-hearted, undiluted pleasure, although it was assuredly no thing of beauty. An ugly, low-lying, squat affair, of the length of a fair-sized motor car but slightly narrower, it was traversed from end to end by chain tractors two feet across and several inches thick. To its rear, above the twin chains, there was a hooded compartment containing the motors and other operating gear; while, dominating the whole, was a low-roofed metallic cabin, equipped with the driving mechanism and heavy glass windows, and capable of containing three or four persons in a closely huddled condition.

"The machine will be more powerful than you might think," remarked the inventor, one day when the ice-cruiser was still but half finished. "It will have a capacity of one hundred horse-power, and will be able to reach a speed of fifteen miles an hour over unobstructed territory. When the surface is very irregular, of course, its rate will be considerably slower. But its traveling range will be limited only by the number of storage batteries hauled in the trailers behind it."

THE ice-cruiser had not yet been completed when our attention was diverted to an event that seemed vastly more important. For the fateful thirtieth of July was approaching, and already *The Susquehanna* was taking on provisions and making its final preparations for the Arctic flight. One can imagine the excitement in camp when the thirtieth had actually arrived, and when the radio informed us that the great dirigible was at last taking to the air. Until that moment we had always been disturbed by absurd misgivings, lest the Naval Department reverse its orders; but now, when the airship was unquestionably bound westward and northward, and when each minute was bearing it a mile or more nearer our shores, our enthusiasm expressed itself in many a loud acclaiming burst, and to our overwrought fancies, it seemed as if the rescuers had already arrived.

By a special order of our leader, the thirtieth of July was a holiday in camp; the pit and the power-plant lay idle; the foundry and the coal mine saw the presence of no workers. But all of us, like one great happy family, joined in a ceremony of rejoicing, skipping about the gay mossy tundra like ten-year-olds on a frolic, playing games with a gypsy-like abandon we had never shown before, dancing to the gay tunes of the radio, or merely sitting about in small groups and discussing what we would do when *The Susquehanna* arrived.

But the most popular recreation—and the one in which we all engaged from time to time—was to receive reports of the progress of the dirigible. "Now it is passing over western Pennsylvania!" someone would exclaim, having just received one of those broadcasts by which the whole civilized world kept in touch with the vessel's progress. And this announcement would be greeted with hearty cheering. Then, some time later, someone would report, "It was just seen above Fort Wayne, Indiana!"—and there would be more cheering, and a mad rush for the maps, so that the precise position of Fort Wayne might be ascertained. Truly, we were like children, in our eagerness and enthusiasm; yet never before had such a spirit of harmony prevailed in camp, never had we looked at one another with such kind, indulgent eyes, and never, since the moment of our arrival on Desolation Isle, had we known such sheer, unadulterated happiness.

And this happiness continued throughout the following days, when we learned of the gradual approach of the vessel of deliverance. Now it had reached Chicago; now St. Paul; now it had swung across the continent, and was making a temporary halt at Seattle; now it was steadily cruising northward above the islands of Alaska; now, having skirted the Alaskan coast, it was being welcomed by the natives of Nome. And, at this point, only one short lap remained to be covered. Or, at least, it seemed to us but a short lap, for what were twelve hundred miles after the thousands already traveled? And so we gaily completed the arrangements for a royal reception: we strung bright flags and banners high above the settlement; we inscribed the word "Welcome" in electric lights above a great headland; we looked again and again at the landing field, making sure that it was in readiness to the last detail; we arranged to parade with bugles and torches at the place of mooring, and to designate the spot by a series of bonfires; we ordered our cooks to prepare our choicest foods—and then, convinced that we had left no stone unturned, we folded our hands, and waited.

Again and again we fling unanswered messages into the unseen . . . Eventually a call does come. Suddenly both men at the radio give a start, as though something unexpected has come to their ears. But in what shocked astonishment we observe the expression on their faces!

During the final laps of the voyage, we were to keep in constant communication with the vessel. Our radio, adjusted to *The Susquehanna's* wave-length, was to react to no other messages; and we were to receive word from the approaching craft at agreed half-hour intervals. Thus we would not only be able to give the visitors any necessary guidance, but would know precisely at what moment to expect them.

The voyage from Nome was to last fourteen or fifteen hours. And during the whole of that time, as may be readily imagined, our camp was in a state of turmoil. To accomplish any work was impossible; even to attempt it appeared futile; we were all so excited that we could do little more than wander about like madmen, talking by sputtering, nervous spurts, or else lingering without a word in the vicinity of the radio. Unquestionably, this was absurd of us—but one must remember that, for more than a year, we had seen and spoken with no human beings other than the members of our party; while already for months we had been looking forward to the event that was to be consummated today.

During the first few hours after *The Susquehanna's* departure from Nome, all things seemed to be proceeding favorably. We exchanged messages with the vessel with gratifying regularity, and were informed of its steady, unimpeded progress. Yet, when it had covered about half the distance, there came a change. Subtle and imperceptible in the beginning, that change was to become by degrees insidious and menacing, so that it is hard to say when it was first observed, and when the danger came to be recognized. As the hours wore by, we began to notice a haze creeping above the previously glittering surface of the sea; and gradually that haze deepened into a thin fog, which covered and obscured the remoter bergs and floes, and which in turn gave way to one of those dense fogs which occasionally beset the northern seas. Though the sun was well above the horizon, the bleakness of twilight eventually overspread all things, and to see more than a few paces had become impossible. It was not on such a day that we had expected to greet our rescuers!—it was natural, therefore, that our spirits should droop, and that we should be obsessed with a little of the somberness that pervaded all nature. Not that we were really depressed, however—our happiness was too deep to be affected by any whims of the weather; we were merely sobered a trifle.

YET before long it became apparent that the disadvantages of the fog were far from slight. "The heavens are blurred by mist. We will have to proceed by dead reckoning," came one of the reports from *The Susquehanna;* and there followed a statement that the vessel's speed had been reduced almost twenty miles an hour. Thus there was sure to be an annoying delay; and, at the same time, there might be some trouble about the landing, for how, amid the fog, would the commander of the dirigible know where to alight? How, indeed, even be certain when he had reached Desolation Isle? We would do our best to inform him by means of torches and bonfires; but, even so, no light could penetrate far across the dense vapors; and the master of *The Susquehanna* would have to be extraordinarily capable to land without injury.

"Surely, the fog will lift," the more sanguine pre-

dicted, with no basis for their forecast other than their hopes. But hours went by, and the fog did not disperse; instead, it gave every promise of lingering for days. Certainly, the gods of the north must have been laughing at us! And yet for a long while, despite the mist, there seemed to be no particular cause for pessimism, since we continued to receive regular reports from the dirigible, and learned that its progress, while retarded, was none the less steady and sure. Our reception to the rescuers would perhaps be a sunless one, but certainly it would be all the more joyous after the delay!

I do not know when it was that our vague apprehension gave way to alarm. The precise occasion, as nearly as I can remember, was the receipt of a mesage which was rather suggestively brief, and concluded with the statement, "Head winds beating hard against us. Having difficulty to keep our course." What if the vessel should be blown out of its path, and should not succeed in finding our island at all?

But later communications, while admitting continued difficulty from the head-winds, did much to abate our fears. "The ship still holds its own," was an announcement that sent a pleasurable thrill to the hearts of us all. "With good luck, we should reach Desolation Isle in about three hours." But, following this, was a comment that disturbed us more than a litttle. "It is difficult to judge our exact height. Our altitude register doesn't seem to work properly. We have more or less to depend on guesswork. The fog is so dense that we cannot see the ocean ten yards beneath us."

Half an hour later, there came another message, which was likewise brief, and yet somewhat more reassuring. And then, when *The Susquehanna* appeared to be within a hundred miles of shore, our real anxiety began.

Let me now transport the reader to Rathbone's office in the power-plant. Twelve or fifteen of us are crowded together in an excited, whispering group; so great is the darkness outside that the electric lights are burning; Kenworthy, in our midst, is seated before the radio, listening through a pair of ear-phones; and Rathbone, at Kenworthy's side, is also equipped with ear-phones, while his face is crossed with that grave, strained expression he has worn so often of late. "About time for another message, isn't it?" I ask, glancing at my watch, after a long silence; while Norwood, also watch in hand, remarks, in a halting way, "Yes. It's two minutes overdue."

But none of us attach any importance to the delay; and a tense silence, broken only by whispers, descends upon us. Five minutes have passed; ten minutes; the men with the ear-phones sit in a rigid, listening attitude, but give no sign of having heard anything at all. "Isn't it rather strange?" one of my companions murmurs uneasily to me. "Think there's any trouble with their machine?"

"Not at all likely!" answers Norwood, attempting a laugh. "It's a good, strong craft, perfectly equipped, and in the best of condition."

But his face, even as he speaks, looks drawn and worried; and the rest of us are not reassured, even though the majority eagerly sponsor his view.

Another five minutes go by; we send out repeated messages, *"Susquehanna! Susquehanna!* Where are you?" Inquiringly we glance at one another—but still no answer comes. And still we wait; and the waiting grows so oppressive that I begin to tap nervously at my knee, then to stride uneasily back and forth along a six-foot space. But all the while the men at the radio sit rigid and silent, their lips compressed, their faces grim and mask-like. "Wonder what has happened to the ship's radio?" someone asks. And this question finds several seconders. "Maybe it's our own radio that won't work," someone else suggests—but a rapid inspection indicates that the apparatus is in good operating order. And we are forced to conclude that *The Susquehanna's* wireless has been disarranged as the vessel struggles with the wind and the darkness.

But, at the same time, gloomier conjectures come into our minds, and we would be happy indeed to know that it is only the ship's wireless that has been disarranged.

However, we still do not believe that anything serious can be the trouble. Again and again hope whispers consoling words; again and again we fling unanswered messages into the unseen—in a minute, five minutes, ten minutes at most, a call will come to us, and we will learn how absurd our alarm has been!

And eventually a call does come. Suddenly both men at the radio give a start, as though something unexpected has come to their ears. But in what shocked astonishment we observe the expression on their faces! With what dismay we watch them turning pale, while their fingers shake and quiver as though at some terrifying announcement!

"Rathbone! Kenworthy! What is it?" we all ask, pressing close about the two men. "What—what have you heard?"

For a moment, they do not appear to notice us. For a moment, they press the instruments to their ears, listening with an avid, fear-stricken expression. Then one of them, our leader, sags down in his chair, and, with the ear-phones still adjusted, seems crushed as by some invisible weight.

"What is it, Rathbone? What is it?" we again demand, in a frenzy of foreboding.

He sags still farther into his chair, and, without troubling to remove the ear-phones, answers our questions, which perhaps he has not even heard. "I made out only three letters," he says, in lifeless tones . . . "Only three letters: S. O. S."

CHAPTER XXIV

Watchers in the Fog

UPON hearing Rathbone's announcement, all of us naturally assumed that further tidings were to follow. What had befallen our rescuers? Had they made a forced landing on some ice-floe? Were they still battling the wind and darkness above the fog-bound sea? Were their engines failing them? Or had their gas-tank sprung a leak? These questions, and a host of others, leapt at once to our excited minds; and Rathbone was besieged with inquiries, while helplessly he stared at us and seemed unable to answer. But gradually we were to learn all that he knew of the facts. Those meaningful letters, S. O. S., had been heard by both Rathbone and Kenworthy, though they came in exceedingly low and feeble tones. . . . But they had heard nothing more. No word of explanation, no repetition of the call had come to us from out of the silence. Many minutes passed, but we might as well have listened for messages from beyond the grave; we sent out call after call, *"Susquehanna! Susquehanna!* Answer us! Where are you?"—but there came no word of hope or consolation.

Even so, we were not wholy hopeless. Any one of a multitude of things might have happened without proving fatal. We recalled the disaster of *The Pathfinder*, and how, in the face of great odds, the craft had struggled to shore—could not *The Susquehanna* be more than equally successful? It was possible that the vessel, while in peril, would still fight its way to our coast; it was possible that only its radio had ceased to

function, and that the ship itself was still aloft; it was possible even that it had been forced to descend on some great patch of ice, whence it would again take to the air. So we attempted to argue; but our contentions, sponsored by a passionate desire, won no support from reason, as the minutes lengthened into quarters of an hour and half hours, and still the unknown maintained its silence.

The entire camp was now in a state of turmoil. Messengers, dispatched by Rathbone from the power-plant, had borne the grim tidings to the settlement; and there was a constant running to and fro of wild-eyed, dishevelled seekers for information. Along the shore, in the dense fog broken only by the sallow electric lights, they paced singly and in muttering groups; in and out of Rathbone's office they crowded, asking always the same question, which was answered always with the same disconsolate negative. Sometimes their lips seemed to phrase whispered prayers, sometimes their eyes burned with a vehement hope, and sometimes stared blank and despondent as those of doomed men. And as the half hours dragged out into hours, their questions became less frequent, and the lips were few that were not drooping in despair.

Hour after hour that miserable, protracted waiting endured. Outside, the fog still drifted thick and heavy, insidious in its bleak gray mantle, which covered all things impenetrably, as though inimical to all things, as though possessed of some spirit of mockery, which would say, "Behold in me all mystery and terror, the end of the universe and its beginning, its purpose and meaning—the great darkness that encompasses you forever." What tragedy lay concealed in that vague gloom? Did our fellows even now lie there tortured and wounded, awaiting the aid which we could not bear them? By this time, we realized, they would have reached our shores even though flying at much reduced speed; by this time, even had there been no radio, we would have known that not all was well. But of what avail was such knowledge? It meant only wearing suspense and horror, only wild surmises, and hope that succeeded short-lived hope; no torment could be greater than the uncertainty we underwent, no regret more piercing than the thought that we had to stand by futilely, when we might be of help if we but knew how, if we but knew how . . . .

At last, when call after call had been flung into the unanswering void, we reluctantly ceased to listen for word from *The Susquehanna*. Switching the radio dial in a last desperate endeavor, we sought to communicate with civilized lands. Was it not barely possible that some American or Asiatic station had caught word that we had failed to receive? Here, at all events, was a shred of hope to cling to—and we clung with the passion and abandon of drowning men! But to no avail. When finally, after much difficulty and delay, we did hear from a distant broadcaster, it was to be attacked with importune questions. "Have you spoken with *The Susquehanna*? What has happened to it? Is its peril extreme? Have you gone to the rescue?" And when we replied, expressing our baffled ignorance, we learned that those same three letters had been heard as far as Alaska: "S. O. S." That was all.

Was it then certain that the thing we dreaded had happened? Could the great dirigible, the pride of the American navy and the hope of our expedition, have plunged to her death in the icy seas? Could the thirteen members of her crew have paid with their lives for the gallant attempt at rescue? And were we now marooned more hopelessly than ever? No! It could not be true! It must not be true! Even in our dread and anguish, we could not permit ourselves to believe in such a disaster!—there must be some happier explanation!

BUT still no other explanation appeared, although the dismal hours wore themselves away. . . .

In the end, turning with pale, pinched face to the tired-eyed crowd in his office, Rathbone wearily offered the advice, "Well, folks, I think you'd better go back to the settlement for a little sleep. I'll arrange for several of us to take turns at the radio—and, aside from that, there's nothing to do. I can see that you all need rest—and you'll be helping out best by taking it."

Although there were a few protests, most of us readily agreed, for we had not slept for almost twenty-four hours. Several volunteers, Rathbone among them, arranged to spend two-hour shifts at the radio; and the rest of us were glad to take the electric car for the settlement, and to fling ourselves, clothes and all, upon our cots for a few hours' slumber.

And yet, though sick from exhaustion, none of us did sleep a great deal; the strain and worry of our ordeal was telling heavily upon us, and much of our time was passed in tossing restlessly from side to side. My own experience, however, was not quite typical. After confused reveries in which I re-lived the hours of waiting and saw the dirigible battling with raging winds, I did drop into a troubled sleep, broken by disturbed and chaotic dreams. But one of those dreams, unlike the others, was not chaotic; it was one of the most sharp-cut and impressive I have ever known. It seemed that I was in the cabin of a dirigible; I observed the name *Susquehanna* written plainly on one of the bulkheads; and I saw the Captain darting past with flushed, excited face, and the blue-uniformed crew scurrying hotly in every direction. Though I was aware of no wind, the ship was heaving and tossing as if in a storm; while to all sides of us there was a fog, yellow and fuming, and so dense that when I plunged my arm into it I could barely see my fingertips. . . . For a long, long time, seemingly for hours, we glided through this obscurity, while within me was a vague, tormenting uneasiness. . . . Then suddenly, like a curtain torn aside, the fog seemed to open, and a fantastic white mountain loomed ahead. "A berg! A berg! Turn to starboard!" came confused cries from all about me; and then, while I shuddered and screamed in terror, there came a shattering shock, accompanied by stabbing lightnings and deep, dull thunders . . . . And all at once the vessel vanished, the iceberg faded out, and I was alone, wide awake in the silence and darkness of my room.

For many minutes I remained so, pondering the details of that nightmare. Although, in my normal state, I am not a believer in dreams, yet this particular experience seemed somehow different; it was so vivid, so real, and above all, so plausible, that I was unable to dismiss it from my mind. Might it not represent the actual fate of *The Susquehanna*? Considering not only the fog, but the admitted difficulty of the vessel's officers in ascertaining their altitude, it appeared not at all unlikely to me that the ship had really collided with an iceberg. Could it be, then, that my dream was in the nature of a telepathic communication from the mind of one of the victims? I will not contend so; I maintain, on the contrary, that it was the upwelling in sleep of my own subconscious fears—although of fears that were uncannily well founded.

The following morning—or, rather, the following noon, when I arose—I observed that the world had become reassuringly bright. The fog had lifted, and the sky stretched blue and cloudless above the glittering sea. Despite my nightmare, which still obsessed me, like some catastrophe actually experienced, my spirits rose a trifle at sight of the sun; and I gazed out across the shining ocean, with its drifting floes and its broken, spectral white icebergs, as though expecting to find

some sign of the missing dirigible. But nothing was to be seen. And no tidings came to me when I hailed one of my comrades with the inquiry, "Well?" Any message during the night?" The man, not deeming words necessary, merely shook his head in a mournful negative, and passed on.

But even now, none of us could quite give up hope. Even now, we deluded ourselves with sanguine pictures. Perhaps the vessel had merely been blown out of its course, and, aided by the clear skies, would soon find our shores. Or perhaps it had been forced down on the ice, whence, after a few repairs, it would again take to the air. Or—even if the worst had happened, and the ship had been destroyed—might not the men have survived, and, by means of small boats, be propelling themselves to land? With such arguments, in the face of reason and probability, we sought to console ourselves; but such arguments were bound to lose their efficacy in time. The day wore on, and no encouraging sign appeared—and another day dragged by, and another, and yet another, until even the most stubborn could not avoid admitting the truth. The flags and banners, strung about the island for the reception, now seemed like flaunted mockeries; the electric sign, "Welcome," on the great headland, was an irony at which we could hardly bear to look—and yet, nourishing the last dying glimmer of hope, holding in mind the one chance in ten thousand that the vessel would yet wing its way to us out of the distance, we did not remove the bright insignia, but preserved them as if in defiance of our own stark disappointment.

However, after about ten days, there came a great gale that tore down the flags and banners, and flung the strings of electric bulbs from the headland into the sea. It was as if nature herself had wished to proclaim the death of our hopes! But not only by this work of destruction did she advertise our loss; she had a subtle and more conclusive way of announcing her triumph. Among the fragments of driftwood and the tumbled wreckage of ice-floes that the storm had cast upon the beach, Captain Knowlson picked up a small object which he examined with the utmost curiosity, and then solemnly brought to camp and displayed for our inspection. It was part of a panel of wood, such as might have been used in the cabin of a ship; and though broken and jagged at both ends, as if battered by an explosion, it displayed several letters still not quite obliterated by the brine.

"S" we made out, without great difficulty; then, almost effaced, "U," followed by a gashed section where a letter may once have been; then, torn in half and barely distinguishable, a chipped and water-marked "Q."

CHAPTER XXV

Flight and Pursuit

IT was an ironic story that was told by that wave-marked scrap of wreckage. We knew now that *The Susquehanna* had arrived within a few miles of our shores; we knew that its end had come with shattering violence; we knew that there was no earthly possibility that any member of its crew had survived. As philosophically as we could, we sought to accept these facts, which already, of course, had been surmised beyond a reasonable doubt; yet now that we were confronted by the bleak certainty, we were weighed down by an intensity of gloom we had never known before. It was not only that our would-be rescuers had given their lives in attempting to save us; it seemed almost as if our expedition were accursed, as if we were doomed to remain forever upon these inhospitable shores. Nearly a year must now elapse before any further succor could arrive—no steamer could be equipped in time to anticipate the formation of fresh sea-ice; no dirigible could be equipped at all, for what nation was likely to risk one of the great airships after the disaster to *The Susquehanna?* Hence, poorly provisioned as we were, and passionately desirous of resuming contact with the world, we must linger throughout another long, sunless winter on this blizzard-swept shore.

It was something of a study in character to observe how the various men took the news. A few, though they had fervently planned on leaving, merely shrugged their shoulders, and muttered a bitter, "It's all in the game!" A few others bewailed not their own misfortunes, but the fate of the poor wretches on *The Susquehanna;* some confined themselves to a mumbled blasphemy, and others indulged in orgies of profanity; one or two contented themselves with wearing a woe-begone expression and withdrawing into a shell of speechlessness; still others had become surly and quarrelsome, and were ready to blaze up fiercely at the slightest irritation; while many had resumed their complaints and grumblings, and found cause for dissatisfaction in the camp and in every detail of camp-life,—in the work, the food, the weather, and most of all in that leader, whom, in some irrational, subconscious way, they held responsible for all their troubles.

Meanwhile he who had the most cause for worry remained outwardly the most composed of all. No one realized more clearly than Rathbone how desperate was our situation; no one understood more completely the threat of approaching famine, and the dire necessity of husbanding our resources; yet no one retained more absolute control of himself, or adjusted himself with more courage to the urgencies of the moment. Only his worn and ravaged features—his pale, lined cheeks, and sunken eyes that stared as if from some remote, sad depth—gave evidence of what he had been undergoing. From his firm tones, from the assurance of his movements, from the ingenuity and forethought of his decisions, one could not have guessed that here was a man sorely beset by misfortune.

But all the while, with a wisdom and energy that were among the most remarkable of his qualities, he was taking the only measures possible to save us. Since our dominant problem was that of food, he set about to enlarge our food supply in every way; he experimented with mosses and lichens, and discovered how a tasteless but mildly nutritious brew could be made from these plants and put away in metallic containers for the winter; he conducted an organized campaign against the animal life of the island, and selected ten men to devote themselves exclusively to hunting, ordering them to ransack every corner and fastness of our shores and to neglect nothing edible from a sea-gull to a whale.

I will not detail the various adventures, the successes and the failures of those hunting expeditions, in which, along with my friend Quin, I took a constant part. I will only say that, amid all the shocks and disappointments of that terrible period, Rathbone's plans were justified in this at least: taking advantage of the long daylight and the comparatively mild weather, we did make a liberal catch of seal and walrus and polar bear, with a sprinkling of birds and smaller fry: and, preserving the greater part of the flesh of these creatures, we laid in a supply which, if carefully used along with the provisions already on hand, promised to guard us against the winter.

But there was one respect in which our food stores still caused us acute worry. Following the example of many a previous Arctic adventurer, several of the men were developing the spongy gums, the general debility, the listlessness and pessimism of mood symptomatic

of scurvy. And while an immediate improvement was effected by a diet of fresh underdone meat, together with what few edible grasses and herbs we could find, the prospects for the winter were far from good. For there was a possibility that the entire camp, being without fresh food, would fall a prey to the dread disease.

At the same time, we were oppressed by other and even graver misgivings. Again we had received warnings from the very bosom of the earth—warnings that came not once or twice, but recurrently. As if by some malicious strategy of nature, the period of frequent earthquakes did not come until after the loss of *The Susquehanna*—and then, as if to make us realize how hopelessly trapped we were, the shocks began to occur by the dozens and the scores, sometimes separated by the space of days, sometimes one following almost immediately upon another. Had we been equipped with a seismograph, we would no doubt have counted them by the hundreds; but, even so, our senses recorded them in sufficient numbers—time after time they would come with an abrupt jolt that would make dishes clatter and send small objects rattling to the floor.

Did they not indicate some hidden danger? Might not disruptive forces be at work beneath our feet? Was not a more serious shock to be expected? All of us had heard that minor earthquakes sometimes precede a major upheaval; and all of us were uneasy, although thus far the chief things assaulted had been our nerves. Many a long and eager discussion we held, the chief question at issue being whether the shocks were volcanic in origin. Both Rathbone and Kenworthy contended that probably they were volcanic, but that in all likelihood they represented the death-spasms of forces soon to become extinct—although, if that were the case, it was hard to understand why the disturbances had become so much more frequent of late.

IT appears to me now that those earthquakes, and the restlessness consequent upon them, had much to do with the grumbling and discontent that were increasingly in evidence among the men. In particular, they lent impetus to our longing to leave, and made the approaching winter months appear intolerable. It is hard to say whether, had the earth remained firm and unshaken, the men would still have acted as they did; whether, for example, they would have gone to the foolhardy extent of presenting a certain petition to Rathbone. This plea, which was sponsored by Allenham, and was signed by more than twenty men, called upon our leader to arrange for our departure across the ice as soon as the sea had frozen once more. Thus, and only thus, contended the petitioners, were we likely to see civilized shores again.

Astonished as he was at this gesture of his followers, and dismally aware that the acceptance of the proposal would mean the failure of all his plans, Rathbone none the less gave the petition that earnest consideration which the number of its signers seemed to demand. Norwood and other men experienced in Arctic travel were called into consultation, and Rathbone declared himself willing to abide by their word. Yet no lengthy sessions were required; the critics unhesitatingly scoffed at the suggested scheme. Even if adequately provisioned, and equipped with the best of dog-teams, they maintained, no man would have more than a fighting chance to cross the six or seven hundred miles to Wrangel Island, the nearest known land; while the greater distance to Alaska or even to Siberia would be virtually impossible. And as for the chance of our party as a whole to trudge across the ice to safety—it seemed to Norwood and the others to be on a par with their chances of flying to the moon.

Hence Rathbone was forced to answer the petition with an unqualified refusal. And the men, grumbling and disappointed, again whispered among themselves concerning the possibility of setting out without Rathbone's authority. I do not know precisely what took place during that troubled interval, for I was away for considerable periods on hunting expeditions; yet from time to time I heard rumors of plots that seemed too wild and fantastic to be taken seriously. That any considerable number would attempt an escape was inconceivable; that a few would mutiny did not seem probable enough to cause me any worries. And so, as the months went by, I let the matter slip from my mind; and a majority of my companions also, I believe, gradually lost sight of it—until one day, after the ice had formed once more on the sea and the long, long winter's night had again set in, our complacency was interrupted by a rude alarm.

One morning I arose to find the settlement in a state of turmoil. The men were scurrying madly in all directions; I saw searching eyes excitedly probing here and there and everywhere; the agitation of shouting voices filled the air. "Collins! McRae! Allenham! Allenham!" came to my ears in a confused, stunning manner. What was wanted of these men? I wondered vaguely. But before I had had time to inquire, I was confronted by a fur-clad form that dashed toward my door in a breathless, excited way.

"Well, Quin, what is it?" I asked, startled by the sight of my Eskimo helper.

"The dogs! They gone!" he ejaculated, not taking time for any formal preliminaries. "Mister Allenham—he take them! They run away while we sleep! He take sledge, too!"

"What's that?" I demanded, incredulously. "All the dogs gone? Who went with Allenham?"

"Not all the dogs!" He held up one hand, and two fingers of the other. "One half the dogs! The other team still here! Mister Collins and Mister McRae go with Mister Allenham. They far away now! Far away, across the ice! They rob the storerooms, and they go!"

"The dirty thieves!" I muttered, still but half able to believe Quin's story. "When did they go?"

Quin threw up his hands helplessly. "How do I know? They go when we sleep! They run away! You and I quick get the other dogs, and catch them!"

Before I had had the chance to cross-examine Quin, a second form came lunging toward me out of the gloom. Even by the imperfect electric light, I could see how ghostly pale Rathbone's face was, how his mittened fists shook and fluttered, how bitterly his teeth were biting into his bearded lip. "Rodney! Just the one I want to see!" he cried, in a quick staccato. "A dastardly thing has happened! That coward Allenham has run away, along with McRae and Collins. I've just checked up—the three of them are missing, and everyone else is in camp. They think they'll make their way back to civilization! I want you and Quin to hitch up the remaining dogs, and set out after them. And make haste! They can't be very far yet, and their tracks are easy to follow. Norwood and Kenworthy will accompany you with revolvers, in case there should be any resistance."

"Very well. I'll go at once," said I.

I had already started away when, with a hasty gesture, Rathbone summoned me back.

"Not being slave drivers, we haven't the right to make them return," he flung out hurriedly, while a grim smile flickered across his face. "You must merely take back the dogs and sledge, along with the provisions, which are our property. After that, they can decide for themselves whether they want to go on or come back."

"I'll not forget to tell them that," I agreed, hardly able to keep from laughing. And, without another word, Quin and I hastened away to hitch up the remaining dog-team.

"If you don't overhaul them within half a day, let them go, and come straight back to camp," were Rathbone's parting instructions, when, a few minutes later, my three companions and I set out southward across the new-fallen snow. "But my own view is that you will bring them back with you in time for supper."

In spite of Rathbone's optimism, my comrades were by no means confident of returning by supper-time; and our sledge carried provisions for several days. Yet we felt almost certain of eventually overtaking the fugitives. We knew that their progress could not be rapid, for Collins was the only one of the three who had ever had a thing to do with dog-teams; while we surmised that Allenham would not consent to cover the icy miles on foot, but would insist on riding, thereby retarding the entire party. No matter what their rate of advance, however, we realized that it was indispensable to catch the runaways, not so much for their own sake—though they seemed to be fleeing straight to destruction—as because of the moral effect their escape would have in camp. We well knew that, if the three men succeeded in getting away, there would be nothing to discourage further insubordination, beneath which Rathbone's authority would dwindle to a shadow.

Therefore we made all possible haste across the snowy sea-plains, following the tracks of the fugitives by the rays of the full moon. The four of us trudged beside the sleigh or behind it; while the dogs, in the prime of condition and unimpeded by any great weight, kept us straining and panting to equal their five miles an hour. Surely, we reflected, Allenham's speed could not equal ours! Yet we knew that he must have reckoned on the possibility of pursuit, and would try to put as many miles as possible between us; and, accordingly, we resigned ourselves to the prospect of a long and onerous journey.

WHAT was our amazement, therefore, when after a spurt of less than an hour we heard familiar sounds issuing from beyond a ridge of ice! Was that not the barking of dogs, ringing out across the frozen solitudes? All of us stopped to listen, half believing that our ears had deceived us. But no! there could be no deception! The sound was repeated, again and again, full-throated, sharp, unmistakable!—while simultaneously our own dogs, hearing the barking, pricked up their ears and burst into an excited pandemonium.

What could it mean? Certainly, the runaways had not paused to make camp so near to the settlement! Yet there could be no dogs except Allenham's and ours within hundreds of miles! It seemed incredible; but my companions and I, discussing in astonished whispers, were forced to conclude that the fugitives, with matchless temerity, had paused to rest almost within a stone's throw from the island!

Even now, we had virtually overtaken them—only a few hundred yards separated us from the ridge. The first part of that distance we covered as rapidly as possible, Quin and I urging on the dogs, Norwood and Knowlson striding before us, revolvers in hand. Since the barking of our own dogs must have advertised our coming, we expected that the runaways would either take immediate flight, or else, not having time to escape, would prepare a violent resistance. But as we drew closer, we concluded that they had made the latter choice, for again we heard a canine howling, louder and nearer than before; and, mingled with the uproar, was something that sounded like the shouting of men.

Approaching the ridge, Norwood motioned to Quin and me to remain behind with the dogs; and he and Knowlson, crouching low against the ice, crept forward inch by inch, their revolvers pointed ahead, their eyes cautiously searching every crevice and cranny of the uneven sea-crust. By the clear moonlight, we could observe how closely they resembled beasts of prey stalking their victims; how cat-like was each movement, how slow and measured each step, how wary the manner in which they hugged the sheltering ice-banks and forestalled all possibility of attack. At last, after infinite caution, they were mounting the ridge, which was neither very steep nor very high; at last, with the alertness of spies on the enemy's ramparts, they had reached the top, and, with revolvers thrust grimly before them, peeped across at the foe.

Quin and I, hovering at the distance of a hundred yards, had trembled at first as we observed them, fearing a sudden fusillade. I had an impulse to leap forward and restrain Norwood, holding him back from the impending danger—for who knew to what extremes the fugitives, grown desperate, might not be driven? Yet there was nothing that I could do; any outcry on my part would but frustrate Norwood's plans; I could only remain as if rooted to the spot, tense and anxious, watching, watching, watching. . . .

But what happened when my comrade had surmounted the ridge was entirely unexpected. To my complete astonishment, Norwood burst into laughter—loud and uproarious laughter, which rang out merrily across the chill air. And Knowlson, joining him, burst into laughter equally loud and uproarious.

Of course, Quin and I lost no time about making our way to the peak of the ridge. And the sight that there greeted us appealed strongly to our sense of the ludicrous. Standing moodily in the snow at the foot of the ridge were our three fugitive friends, and beside them was the sledge, turned wrong-side up, with hundreds of pounds of canned pemmican, dried meat, furs, sleeping bags and miscellaneous provisions scattered in the snow. But what impressed us as particularly amusing was the condition of the dogs. Their traces were snarled and knotted in the most intricate manner imaginable; the seven of them made little more than one furry heap, each tangled inextricably amid his fellows; and yet they seemed to take considerable joy from the situation, for those that were not snapping and slashing at their neighbors were reaching with greedy muzzles for the spilled meat, which they were consuming in enormous quantities.

Upon our arrival, the three men stared at us sullenly, but said not a word.

"A nice little smash-up, one of the nicest I've ever observed!" commented Norwood, with an amused grin. "And this is by no means the first upset sledge I've seen, either! Well, ready to come back with us?"

The fugitives still had nothing to say, but I noticed that no one made any motion of dissent.

And a brief silence followed, broken by the surprised exclamation of Knowlson. "Say, what's happened to you, son?" he cried, pointing curiously to Allenham. "You haven't done a thing to your hand, have you?"

All at once we observed how the furred mitten of Allenham's left hand showed a great patch of red, while a jagged opening revealed a bleeding gash.

"It's the damned dogs!" muttered Allenham breaking silence for the first time. "One of the curs—curse him!—nearly tore my hand off!"

"Serves you right, too!" grumbled Collins. "Hell! What did you expect? Not knowing any better than to grab the meat from a hungry dog!"

Allenham said nothing, but glowered bitterly at his accuser.

"If it hadn't been for you, we wouldn't have gotten into this mess!" Collins continued, angrily. "Damn you! Said you could drive the dogs, and the minute I give you the reins you let them run away! And you were the one who begged us to go! Now I guess you've got what you wanted!"

"I guess we've all got what we wanted!" mumbled McRae, in disgust. "But I'll see Hell frozen over before Allenham gets me to travel with him again!"

"Most likely none of you will want to travel soon again," suggested Norwood, calmly. "Well, boys, if you'd like us to help you put things to right, I suppose we might have a try. And after that we'd better get back to camp as soon as we can, so as to have Allenham's hand looked after."

There was something like a mumbled protest; but nothing that could have been mistaken for emphatic dissent. And no one had anything to say when Norwood, with the skill born of experience, began to disentangle the knotted dogs. . . . An hour later the remnants of the provisions had been collected and we were all on our way back to the settlement.

CHAPTER XXVI

The Long Ordeal Is Ending

CONTRARY to expectations, Rathbone did not prescribe any penalties for the returned fugitives. Evidently he considered that the stigma of their failure had been punishment enough; while the speed with which they had been apprehended would discourage all further efforts at escape. In particular, the ringleader and chief offender had already been sufficiently chastised, for the gash in his hand was severe and painful, and was to cause him trouble for many days. It happened, however, to have been his particular ill fortune to have been wounded in the left hand: so that, when he pleaded his injury as reason to be excused from work, Dr. Straub denied his request on the ground that he could operate the elevator with his right arm—and Allenham, disgruntled and grumbling, an object of ridicule and of self-pity, was forced to return to the labors he detested.

But in another and subtler respect, he was made to atone for his misdeed. I cannot testify to the exact extent of his chastisement, but I am certain that, from the time of the attempted flight, his relations with Ada were not so cordial as of old. Doubtless she resented his disloyalty to Rathbone and to us all; doubtless, also, being human, she was angered at his cowardice in seeking to run away while she, whom he professed to love, must drag out her days on the island. So, at least, I should judge, though no word on the subject was ever spoken to me: I only know that I no longer observed Allenham and Ada together, and that on one occasion, when he attempted to speak to her, I saw her turning away as if not hearing him. All this, of course, may have represented but some petty lovers' quarrel; but I, observing all the signs of a breach, interpreted their difference as of the type that time does not readily heal. None the less, I had no reason to feel a personal victory, since Ada, while conversing with me occasionally with a sort of reserved politeness, had not restored me to that favor which I had once enjoyed; and if Allenham's position with her had weakened, it did not necessarily follow that my own chances had been improved.

But I mention all this only casually, for tremendous events were agitating us during those months—events of triumph, and agony, and terror—and we could not give a great deal of thought to personal relations which might have occupied us exclusively.

The thing that chiefly interested us, before the last appalling turn of fortune, was our progress in the pit. Regardless of all discouragements; regardless of the loss of *The Susquehanna*, the threat of inadequate food and scurvy, and the uncertainty concerning our return to civilization, Rathbone was proceeding resolutely with the work of excavating. And there seemed reason to believe that he was succeeding! A few months after the disaster to *The Susquehanna*—by about the first of December, to be precise—the shaft had almost reached the two-mile level, and the temperature, as registered by a thermometer buried in the rock, had risen to 212 degrees! In other words, the long-sought mark, the boiling point of water, had been attained!

I remember how the face of Rathbone glowed and burned on that triumphant day when he informed me of the accomplishment. I remember the hopeful, brilliant light that came to his eyes; the ecstasy that illumined the thin cheeks which had lately seemed so careworn and sad. Once again it was the Rathbone of former years who stood before me, the young seeker filled with eagerness and passion, the experimenter whose pulse had never slowed to the beat of discouragement; and, as I listened to him, I forgot how gray his hair had become, how troubled and tired were his eyes, how stooped those shoulders were growing which had always seemed so firm and straight.

"Rodney! I think we have almost won out!" he exclaimed, with a ringing enthusiasm. "This is a memorable day for us all! After next summer, when we have installed boilers in the pit and heated the waters of Frost Lake, we shall actually have reclaimed Desolation Isle! It has been a hard, hard struggle—but I believe it will prove more than worth while. Just think! in a few years' time, wheat and corn will be growing on the tundra now covered with ice! No more primitive hunting expeditions then!—prosperous communities will be making their home on this island, and all over the Arctic! More than that! For centuries to come, the world's surplus population will be migrating to the Polar regions, and its surplus food will be produced there. And this change will commence within the coming year! We ourselves shall begin it, Rodney! We shall be the pioneers of the movement!"

"You shall be the chief pioneer!" said I. "Your accomplishments are without rival in the history of exploration! The world shall know you as one of its great discoverers—a Columbus of science! . . . But, tell me, is there no more excavating to be done?"

A thoughtful expression came across Rathbone's face, and he hesitated before replying. "It is hard to answer with a yes or no, Rodney. If necessary, we could proceed without further excavating, since water at the bottom of the pit would reach the boiling point in time. But, on the other hand, if we dug down another four or five hundred feet, so that the temperature would be ten or twelve degrees above boiling, the water could be heated much more rapidly, and our success would be quicker and more certain. Why, come to think of it, wouldn't it be foolish to lose that opportunity? We have time in plenty, since in any case we can't complete the operations until the ice melts next summer; and we have enough tri-nitro-fluoric acid to excavate another mile."

I do not know why, but I felt a vague alarm upon hearing these words. And something within me was moved to ineffectual protest. "Don't you think you'd better let well enough alone, Steve? You can succeed without digging any further—why take unnecessary chances? What if your progress will be slower? At any rate, it will be safer."

"Safer?" he laughed, scornfully. "You seem to be a born conservative, Rodney! Let well enough alone? No,

we can never do that if we want to progress. We wouldn't have come here in the first place if we'd wanted to let well enough alone."

"That may be," I retorted, stung a little by his remarks. "But have you forgotten the fissure in the rocks? Do you want to run the needless risk of striking a second fissure?"

"There may be a risk—but it is not needless," he contended. "At worst, the danger is slight. We ran into one crevice by sheer accident—there isn't a chance in a thousand that we'll strike another. Even so, we would probably be able to repair it. And, in any case, you may be sure that we shall move cautiously."

"I have no doubt of that," I admitted. And yet, for some unaccountable reason, my uneasiness persisted, and I would have given a great deal to be able to persuade Rathbone not to continue his excavations.

But nothing that I could say was of any avail, and the excavations did continue, somewhat more slowly than before, but none the less at a sufficiently rapid rate. And not more than four or five days were to pass before I was to become startlingly aware that my anxiety had been well founded.

ONE day, after work was over, and while we were amusing ourselves with various sports and games before retiring for the night, the preliminary shock occurred. It was an earthquake of more violence than usual, and yet not violent enough to do any great damage, although the dishes in the kitchen did clatter ominously, and many loose objects came banging to the floor. It seemed to us that the tremor had lasted not less than three or four seconds; and this fact, though we would not admit it, alarmed us just a little. After the quake was over, we discussed it for a while with attempted jocularity; but our nervousness was apparent in the very way in which we dwelt upon the phenomenon and at the same time treated it with assumed contempt.

A few minutes later, one of the men, bursting into the house in an agitated manner, made a request whose significance we could not at first guess. "I wish some of you fellows would come outside with me. There's something I want to show you."

"What is it? Not running across any gold mines, are you?" someone laughed, despite the serious expression on the newcomer's face.

"No, no gold mines! Maybe only a fog on the brain!" he said. But his manner was extremely earnest and grave.

Most of us, however, could not see any good reason for donning our fur coats and plunging out of doors with the temperature at forty below. And it was only after repeated urging that two or three of us, largely out of curiosity, did heed the request of the importunate one.

Once in the open, our guide escorted us without a word to the edge of the settlement, and pointed eagerly toward Devil's Peak, whose huge dark mass was dimly visible by the light of the half-moon.

"What is that?" he demanded, indicating a wisp of vapor near the summit of the mountain. "I've been noticing it just now while gathering ice from the creek. But I'll swear it wasn't there before the earthquake."

In spite of his serious manner—or perhaps because of his serious manner — the rest of us burst into laughter. "Why, it's nothing but a speck of cloud!" we exclaimed.

"Yes, but notice, there's no other cloud in the sky," he reminded us. "And please observe that it isn't like an ordinary cloud. Do you see that faint reddish glow?"

We looked more closely—surely enough, there was a ruddy coloration to that thin veil of fog! Or did we only imagine the coloration? So misty, so nearly imperceptible was the redness that it might have been the product of mental suggestion. "Some queer effect of the aurora. Or maybe only some red star shining behind the fog," one of the men volunteered; and the rest of us laughed, and did our best to accept this view. For it was impossible to believe that that minute hazy red film could be anything of importance.

So cold was it outside that we did not care to wait for further explanations, but without formality hastened back to the warmth of the settlement.

But, as we did so, the words of one of our number rang in our ears; and long, long afterwards we were to hear them echoing. "I tell you, that red light means trouble. I saw something like it once down on one of the Pacific islands—and what followed was worse than twenty hells. Believe me, smoke like that is no joking matter!"

"Smoke?" we laughed. "How could it be smoke up there on the mountain?"

And, bursting into loud ridicule, we disregarded the obvious implication of the words, and left our gloomy-minded comrade to pursue his reveries in solitude. A moment later, returning to the games of cards and checkers that he had interrupted, we amused ourselves with jests at his expense.

CHAPTER XXVII

A New Ordeal Begins

THE seventh of December is a date that I shall always remember with horror and dismay. Of all the days in the year, this is the one that I recall the most vividly, the most dismally, the most unforgettably; this is the one whose very recollection is the most certain to make me shudder, for it is connected indelibly in my mind with the most tragic event of my career. It was on the seventh of December, during the second winter on Desolation Isle, that the fortunes of Rathbone and his associates reached their unexpected climax.

It had been on the sixth of the month that the earthquake had alarmed us and that we had discovered the wisp of vapor above Devil's Peak. But most of us, forgetful of both portents, had sought our beds that night without misgivings; and none of us could have had any forethought of the agonies of the morrow. Personally, I slept a sound, dreamless sleep—a sleep greatly needed in view of the trials that lay ahead!—and I must have been slumbering close to eight hours before my abrupt awakening.

Never in my life—not excepting one memorable occasion when I had leapt up with the fire-bells in my ears—had I been aroused quite so rudely. It seemed as if enormous arms had seized me, and were shaking me back and forth, furiously back and forth; and in the incalculable fraction of a second I was shocked into awareness that all things about me were in violent motion. From the instant of awakening, I recognized that this was more than an ordinary earthquake—never had I imagined the possibility of a convulsion so vehement and so prolonged. As if some tremendous invisible power had clutched me, the cot on which I lay and the very house, all things about me, continued to rock dizzily, crazily, spasmodically, in a series of sharp, irregular jerks. And all the while a terrific roaring was in my ears, mingled with the tumult of objects falling, the crashing and shattering of windows, the barking of frightened dogs, and the shouts and shrieks of excited humans. To me, huddled in my dark room with fast-pounding heart, it seemed as if the disturbance was never-ending; minute after slow-dragging

Speechlessly, and with fast-pounding hearts, we few fugitives pressed together and watched, until stunned by the sight of a vastly more appalling upheaval . . .

minute apparently went by, while to my fear-stricken mind there came visions of the roof above me plunging down and burying me beneath the débris.

Nor were such imaginings very far-fetched. Before the last tremor had passed, there came the most frightening crash of all, accompanied by a noise as of a great tearing and rending. And my bewildered eyes caught sudden glimpses of the stars, while an icy wind shot in out of the darkness and nipped and bit me cruelly. Two of the walls had separated in the corner opposite me, leaving a gaping opening!

Terrorized as I was, I leapt instantly into action. Springing from my bed, I reached instinctively for the electric push-button. But it gave no response! The power had failed us! Then, as I fumbled in the chilly gloom for my fur garments and unsteadily began to adjust them, the earth gave a last convulsive jerk, and, to my inexpressible relief, became once more motionless.

Now, for the first time, I was distinctly aware of the shouted words that filled the air about me. "Knowlson! . . . Norwood! . . . Rathbone! . . . God! What a shock! . . . Can you get me a light! . . . Anybody hurt over there? . . . The house is half ripped down!"—these exclamations and others, shrilled by half a dozen voices, came to me in a terrified, confused chorus. And almost simultaneously, through the staring aperture in my wall, I began to see oil-lamps flaring and wavering, showing dark figures that shot rapidly past.

It must have been less than a minute before I was fully attired; never had I made such speed before; the devouring cold prodded me to haste as much as did

my terror. At last, clad somehow, though my clothes were adjusted in an odd, topsy-turvy fashion, I reached for the door-knob with the swiftness of panic, and stepped out into the open.

But what a shock I was to receive! What strange, unfamiliar impressions by the light of the half-moon! The settlement almost in total darkness, except for one or two flickering lamps; the dimly outlined walls somehow out of position, twisted freakishly, or slanting like the tower of Pisa! But what most astonished me was a red glow that discolored the heavens toward the east, from the direction of the pit and the power-plant.

In the first bewildering moment, I did not pause to ask myself what that illumination might be. Now that my own immediate peril was past, a stabbing thought shot over me. What of my comrades? Had any of them been injured? For all that I knew, might not some of them have perished? In a great burst of dread, the thought of one person in particular flashed over me. "Ada! Ada!" I cried aloud, scarcely knowing what I did. But there was no one to heed me, and no one to know how frantically I groped my way across the frozen ground to her doorway.

Fortunately, I had not long to wait. Within a few feet of the entrance, I saw her emerging, candle in hand. Her robes were thrown about her haphazard; she looked very pale, but apparently uninjured. "Rodney! Oh, I'm so glad you're here! Are you hurt?" she murmured, catching sight of me. And, even as she spoke, the ground shuddered again, and my heart once more began thumping wildly.

"Isn't it terrible, terrible?" she whispered, half as though to herself. And then, in tones of unconcealed fear, "Have you seen Stephen?"

I shook my head; and at this point, to my renewed horror, the earth gave another sharp jerk, as though it had suddenly subsided by inches.

Helplessly we stood staring at one another, neither of us daring to say a word; and the interval was made vivid by the shouting of men and the howling of the dogs, who broke forth again in dismal chorus.

WITHIN another minute—possibly within ten seconds, so rapidly did things happen—small knots and groups of men began to gather in front of the houses, some of them swinging dully burning oil-lamps, and others finding their way with electric flash-lights. One or two were quivering visibly; others were muttering to themselves and cursing; several nursed bruised arms or legs. But, though all were badly frightened, none appeared to have been gravely injured; and it was not long before, gathered in one shivering, vociferous group, we began an informal roll-call, and ascertained that every member of our company was alive and present—every member, that is, except one.

"Where is Rathbone? Anyone seen Rathbone?" the men began to exclaim, in answer to Ada's repeated, "Who knows where my brother is?" For suddenly it had occurred to us that no Rathbone was to be observed. "He must be right at hand," some suggested; and so we made our way hastily to his house. The walls, we found, were no more badly contorted than those of other dwellings; the furniture, as in other cases, was thrown about in confused masses; but no human being was to be observed.

"Rathbone! Where are you, Rathbone?" we began to shout. And the call was taken up and re-echoed on all sides. "Rathbone! Where are you, Rathbone?" Could it be that disaster had overtaken him?

Had we been in a normal frame of mind, we would have known that nothing serious was likely to have happened. And, had we been normal, those two or three minutes during which we sought him would not have been magnified to tormenting ages. It was really no time at all before he appeared from around a bend in the headland to the east, swinging an oil-lamp, and striding rapidly toward us through the hard snow.

I could not see him clearly, yet his eyes, when I caught my first glimpse of them, seemed to be more agonized than ever in the past; while his face wore the white, harrowed expression of one who has looked upon unmentionable horror.

"Calling me?" he demanded, in quick, jerky sentences, scarcely taking note of the chorus of relieved murmurs. "What is it? You all here? Anyone hurt?"

Promptly we informed him of the extent of our injuries, and he hastily went on to explain, "Sorry you couldn't find me. I was already up when the shock occurred—had been rather restless all last night. I noticed from the first that strange red light in the east, and went a short ways over to investigate."

"Find out what it is?" several of us inquired in one excited voice, while again we noted the pale ruddy illumination that extended high above the eastern horizon.

"No, I did not find out. But there was something else I did discover," declared Rathbone, in slow, ominous tones. "Come over here with me, some of you, won't you?"

All of us followed him toward the edge of the settlement. "You see that misty red film?" he inquired, pointing up toward Devil's Peak, which we now observed for the first time. "What do you make of it?"

Again we glanced at the red cloud which hovered over the mountain. But it was larger and denser than last night; its fiery coloration was now unmistakable; it had become warningly funnel-shaped.

"Smoke!" muttered Rathbone, in slow, significant tones. "Smoke! Volcanic smoke——"

But his sentence was never completed. A flash of light, brusting from the eastern plain like a lightning bolt of unexampled brilliance, interrupted him sharply—to be succeeded instantly by other flashes, as though a battery of gigantic rockets had been released. Like inverted shooting stars, or like comets with phosphorescent red tails, the great sheets and streaks of flame catapulted heavenward, following one another with unimaginable rapidity. At the same time, while we pressed against one another for protection and cried out in our alarm, the earth heaved and quivered beneath us. Then, after a few seconds, while the leaping lights leapt even more vehemently, with white and greenish flashes and blazing electrical flares, a terrific crashing dinned upon our ears, a rumbling and booming as of thunder or of dynamite exploding, in a series of deeptoned detonations, grumbling and growling deafeningly, as though they bespoke some hidden, inconceivable force.

But, after a moment that held ages of horror, the tumult died down, and with it the fiery spectacle waned and retreated. And in place of the great shooting tongues and streamers of flame, a single glaring fountain jutted skyward from some invisible opening, of the shape and size of a mighty geyser, and with the terrible redness of a conflagration. It did not crash and rumble now, as during its first paroxysms of birth; but a shrill, incessant hissing, like the screeching of escaping steam, was borne threateningly to our ears. And to our nostrils, after a few moments, there was blown an acrid, sulphurous odor; and cinders came drifting to us across the wind; and the air grew perceptibly heavier and warmer. And all over the eastern skies, reaching even to the zenith, a portentous reddish glow was settling; while we poor watchers, huddled together like trapped rats, groaning with apprehension or praying and muttering in terror, felt little, except

a paralyzing sense of our own smallness and helplessness.

For several minutes, the actual nature of the disaster did not impress itself upon us. Confused and horrified as we were, we were dominated by a blind, instinctive fear, and could not inquire into how or why. I do not know how long it was before one of us, swifter to recover than the rest or less severely shaken, leapt to the explanation which must soon have dawned upon us all.

"The pit! The pit!" he cried. "The fires come from the pit!"

Rathbone, who stood at my side, clutched at my arm as though ready to drop. Furiously I strove to support him; while he, whose knees seemed to be quaking and giving way beneath him, could only echo those despairing words, "The pit! The fires come from the pit! All, all our work is ruined!"

From the watching crowd there burst a low moan of dismay. And Rathbone, still half supported by my arm, covered his eyes with his hands, as though to shut out some unbearable spectacle. Meanwhile, in the distance, that red geyser still shot skyward, hissing continuously, belching fumes and cinders, spattering the sky with a crimson flame matched by the crimson mist that still soared like a slow menace from the crest of Devil's Peak.

CHAPTER XXVIII

The Terror in the Skies

THERE are some shocks that come with such severity and suddenness that the mind cannot grasp them all at once. At first one experiences little more than a stupefying blow; only by degrees can one absorb the full devastating truth. Thus it was with us on Desolation Isle. So overwhelming was the catastrophe, and with such brutal unexpectedness had the stroke fallen, that we were merely dumfounded and bewildered; and only Rathbone, in his quick, hopeless comprehension of our loss, seemed able from the first to look the terror in the face.

Yet by degrees, partly from Rathbone's pithy utterances, partly from remembrance of previous disasters, we were able to surmise what had happened: how we had been dwelling, as it were, on the lap of a slumbering volcano, while eruptive forces, struggling to break loose, were stirring beneath our feet, and had manifested themselves in the trembling of the earth, in the escaping gases in the pit, and in the unexpected heat as we bored downward. None the less, the worst of those forces might have remained harmlessly pent-up had we not excavated those last fatal few hundred feet. Without knowing it, we must have approached within a comparatively short distance of the vast subterranean stores of molten rock and compressed, heated vapors; and these, with but a thin crust between them and the bottom of the pit, had burst into our shaft and to the surface in a geyser of gas and lava. And simultaneously the crater of Devil's Peak, affected by the same great uprushing of hot liquid rock and explosive fumes, had manifested that funnel of smoke which had alarmed us.

So, at least, we concluded; yet there is of course no way of knowing positively whether the eruption was really caused by our operations; whether, in fact, it was not destined to take place despite anything we did or could have done.

All that, however, mattered but little to us; we were concerned not with explanations, but with what had actually occurred. Truly, our situation was desperate!—the pit, a place of flame and fury, ruined beyond hope of repair; the power-plant evidently destroyed, either by the earthquake or by the erupting fluids, leaving us permanently without heat or light; our dwellings split apart, and not one of them able to keep out the wintry blasts; while, with the purpose of our expedition frustrated, we were marooned in the heart of winter on a Polar island, hundreds of miles from human habitation, with a volcano smoking above us and the earth trembling beneath.

The full hopelessness of our position was to become even more apparent as time went by. After Rathbone's recovery from the first terrible realization, he attempted to lead us across the snowy tundra toward the pit, in order to determine the extent of the damage. To use the electric railroad was impossible, not only because the power was off, but because the rails were bent till they resembled corkscrews; but to walk was almost equally out of the question, since the heat increased at an alarming rate as we advanced, while the cinders rained upon us in thickening showers and a sharp, suffocating gas was persecuting our nostrils and throats. But we did at least cover a few hundred yards, and then, looking toward the pit from the summit of a slight rise, saw how startlingly everything had changed. Of the power-plant there was no sign! But, where the funnel of the pit had been, there stood a huge glaring mound, perhaps a hundred feet high; and from its center spouted the geyser of flame; while on all sides, for not less than a quarter of a mile, the ground was a glowing, red-hot mass, fringed in every direction with dark lines, where the ice and snow had melted.

Even as we watched, there came a change in the torrent of fire. As though prodded by some gigantic underground hand, it leapt up suddenly with several times its former force, springing in a crimson fountain to the height of a tall hill. Simultaneously, green and yellow sparks, gleaming and dancing high in air, made a dazzling, terrible spectacle; while our ears were assaulted by a sizzling and hissing, louder and more sinister than before; and a great wind of heat swept over us scorchingly. Instinctively, with exclamations of amazement and fear, we started back upon our tracks, a disorganized, panic-stricken mob. We noticed how soft the snow had grown beneath our feet; and how, as though further to retard our movements, the earth had begun to sway and shudder once more. Then, as our eyes turned upward toward the bleak, head-shaped mountain, we observed the most disquieting symptom of all. A thin, fiery vapor was emerging from the mouth-like fissure on its side; while from its summit issued a long, crimson jet of flame, shooting hundreds of feet skyward and losing itself in a rose-hued haze, which spread rapidly to all sides, as though destined to devour the heavens. And swift bluish forks of lightning, varied by starry scintillations and darting white electrical rays and banners, arose like apparitions at the rim of the clouds, and vanished; and there was a rumbling beneath the surface of the earth, and a rumbling from the heavens, and in our hearts the madness of an overmastering fear.

Not until we had regained the settlement did any of us pause in our panic-stricken flight, or dare to speak; and even at the settlement there was cause enough for terror, for the vapors still harassed our nostrils, and fire and lightning filled the skies with undiminished brilliance. But, as if by instinct, we halted before the ruins of the houses—where else was there to flee, except across inhospitable snow-banks or the tumbled ocean ice?

I think we must have looked like a flock of sheep harried by wolves, as we huddled together in a shivering band there by the torn and falling walls that had given us shelter. One and all, we realized that we were

at bay, ambushed and encircled by forces too great to withstand; one and all, we quivered with an inner dread for which there could be no consolation, and each tried as best he could to prepare himself for the end that seemed to be fast approaching. Some prayed silently, some openly with nerve-racking plaints and supplications, some mumbled things inaudible, and some merely coughed and gasped, or vainly strove to remove the cinders from their eyes; while many of us stood speechlessly, as if for protection, by the side of a friend, or, with lips compressed and haunted eyes, slowly and restlessly paced the frozen ground. And meantime the flames in the skies grew brighter, and the volcanic cloud drifted farther and ever farther across the heavens, red as a foggy sunset, and with a retinue of blue lightnings; while the air was filled with a still louder booming and thundering, with which was oddly mingled the howling of the dogs in a distracted, continual chorus.

What were we to do? Certainly, we could not remain shuddering there in the darkness, a prey to dread and inactivity. Yet was there anything that could be done? Half crazed as we were, few of us were able to look beyond the moment; blindly and passionately, with the fury of imprisoned beasts, we hoped for some way of escape; but we had become powerless to help ourselves. Consequently, it was fortunate that, at this moment of crisis, there was one of our number who retained the self-possession to face the facts, and to try to find a way out of the trap that was closing upon us. Not least of the occasions on which Rathbone displayed his courage, I account that cataclysmic hour when the rest of us, broken and unnerved, seemed unable to lift an arm in our own defense. It was his coolness and good judgment which were to provide the last desperate grounds for hope, and to save all that could be saved of our expedition.

IT was not long before he had forced himself to seem something like his normal self, and to act again the part of a leader. Raising his arm in a commanding gesture and shouting at the top of his voice, so as to be heard above the pandemonium of the elements, he signified that he wished to address us. And the rest of us, affected subconsciously by his composure, seemed at once to gain better control of ourselves. It was with eagerness—perhaps an eagerness accentuated by our very apprehensions—that we gathered about him in the flame-shot gloom; and every one of us, pressing close to him by the leaning house-walls, must have looked toward him with a forlorn, secret hope.

Yet Rathbone would have been more than human had he been able to satisfy us all. The most that he could do was to consider the one conceivable solution to our troubles—and this he did with admirable self-command. "My friends," he began, shouting so as to be heard on the borders of the crowd, "My friends, it is time to ask ourselves what must be done. I do not need to point out the situation. Our homes are uninhabitable, and we cannot remain as we are now. One of two things must happen—first, the eruption may die down, and we will be able to rebuild our houses and pass the winter on the island. Let us pray to heaven that that will happen! But there is another possibility—the eruption may be only commencing, and the volcano may end by becoming much more violent. I dread to consider such a turn of events, but let us face it now, when there is still time to think. What shall we do if we cannot remain here? There is always one bare chance, which I would not suggest except as a last resource. Six or seven hundred miles southward across the ice lies Wrangel Island—as bleak and uninviting a spot as could be found; but there we might find game enough to sustain us for the winter."

Rathbone paused, and a groan from some member of the audience broke the tense silence that ensued.

"How can we cross the ice?" someone finally shouted. And Rathbone, after a brief hesitation, declared, "That is what I have asked myself. There are forty-one of us in all, and we have only two dog-teams—which could not carry provisions enough for one-fifth of our number. And traveling by dog-team is highly precarious, as I reminded you some time ago, when I refused your petition to cross the ice. But necessity makes hard rules, and we may have to do what our better judgment would forbid. Even if the worst comes to the worst, however, we will not have to depend mainly upon the dog-teams."

Again the speaker paused. The spectacle in the heavens had become even more brilliant; the red cloud had spread across the zenith, and was dropping toward the western and southern horizons; while the rapiers of thin lightning darted and zig-zagged more fantastically than ever. And now and then there came a detonation so prolonged and sharp that the very hills seemed to waver and shake.

"Some months ago, you will remember," continued Rathbone, during a lull in the storm, "I built a caterpillar tractor machine or ice-cruiser, which is capable of traveling upon the frozen sea. While not intended for the present emergency, it may serve us well; we have laid up storage batteries enough to carry us to Wrangel Island, or possibly to Siberia. As yet we have only used it once, in a ten-mile test along our coast; but it has proved equal to crossing the roughest ice. It now rests in a shed at the western end of the settlement, along with the five sleighs built to trail behind it. The earthquake, as luck would have it, has not damaged it."

A brief but savage jarring of the earth intervened at this moment, accompanied by a roar that drowned out the sound of Rathbone's voice. It was several minutes before the rest of us had regained our composure, and he could continue; and meanwhile the glow on the clouds above, constantly brightening, had become so pronounced that we could guide our movements by its ruddy reflection.

"There is only one trouble about the ice-cruiser, so far as I can see," resumed Rathbone, when at last we were in a state to listen to him again. "Powerful as it is, it could not transport us all, together with the essential provisions. Some of us will have to use the dog-sledges. But these, along with the ice-cruiser, may barely be able to carry us all. Or, rather, they will have to carry us all. The question will be to determine who will use the ice-cruiser, and who the dog-teams. But God forbid that we have to use either!"

As if in echo of this sentiment, there came a particularly loud wailing from the dogs, who were evidently as much frightened as any of us. And, by way of a sardonic response, the earth trembled anew, and from its depths there issued a more portentous grumbling and roaring; while the funnel of flame from above the pit, as well as that other funnel above Devil's Peak, seemed to be rising and rising, like streams of water when the pressure is increased.

"I do not wish to alarm you needlessly," Rathbone concluded, his voice now hoarse and strained from shouting, "but I think it wise to be prepared. Let us load the ice-cruiser and the sledges with provisions, particularly with pemmican and dried meats—as much as they will carry. And let us first have some sort of meal—it will be well to conserve our strength. Come, we must all work together!"

With Rathbone at our head, we hastened to the storeroom; and between bites of chocolate and frozen meat, we all took part in loading the sleds with food.

"The pit! The pit!" he cried. "The fires come from the pit!"

I SHALL not attempt to depict our sentiments as we engaged in that melancholy task—the sickening, sinking sensation at the prospect of flight across the ice; the despair at the failure of all our plans, which the flight would only emphasize; the dread that was eating away within us, dread for our own lives, and for those of our comrades; the conviction of coming catastrophe, unreasoning but passionate, which filled the hearts of most of us at sight of the crimson, sultry heavens; the intermittent hope, which flashed and flickered in our minds as crazily as the fickle lights that streaked across the skies. As if to magnify the horror of our situation, nature was playing with us as a cat plays with a wounded mouse; at times the disturbance would seem to subside, the spout of vapors from above the pit and the volcano would die down and almost vanish, the glowing clouds would grow dull and ashen—then suddenly the eruption would be renewed, more violent, more thunder-toned than ever, and our despair would be all the deeper, because of our momentary hope. Soon we came to recognize the periods of lesser and greater activity as but parts of a natural rhythm, like that often observed in geysers; and a brief subsidence in the volcanic activity would no longer bring us encouragement.

For, as the hours went by, we observed that each eruptive spasm was more vehement than those before. And, even had not the increasing murkiness of the atmosphere and the rising temperature and the searing acrid vapors given us warning, we would have known that the subterranean forces were gathering for furious and ever more furious demonstrations, and that Desolation Isle was fast becoming unfit for the abode of human beings.

Yet, though instinct and common caution alike would have urged us to flee, we still lingered on the island, hoping against hope, not daring to put forth on the treacherous sea-ice. For the order, "Leave!" would have been like the command "Abandon ship!" to mariners helpless in mid-ocean.

We could not have known how perilous our delay was to prove. The final blow came with shattering suddenness. It was after one of the periods of comparative calm; and all of us were expecting a violent sequel—though nothing nearly so violent as actually occurred. Without any preliminary, without warning, an electrical wave seemed to shoot through the air, shocking us all as if we had come into contact with a charged wire, and knocking several of us off our feet. And when, terrorized and bewildered, we regained our balance, it was to hear a blast as of some world-shaking explosion, and to see tremendous masses of earth and rock hurtling high into air and falling in a fiery avalanche above the pit. Simultaneously, another avalanche of flame was leaping from the crater of Devil's Peak, and the mountain, by some horrible freak, had changed its shape, had suddenly become lower, as though its upper quarter had been torn away! At first we were too dazed to realize that the rim of the crater had actually been blown off; but we did know that torrents of red-hot rock and blazing liquid were shooting through the air; we did know that the atmosphere was thick with dust and cinders, and that stray projectiles were falling about us; and we did see an enormous glaring red patch that had formed on the side of Devil's Peak, rapidly expanding where the boiling lava was pouring out, and pouring down the steep slopes.

While these sights were flashing upon our eyes, a great crashing burst forth near at hand, accompanied by a hot wind and a terrific gush of flame. And where one of the houses had stood, there was suddenly only a gaping crater, within which shone something fiery red and hissing.

At the same time, a horrified wail issued from one of the men, so agonized that, even in our terror, we could not help heeding it. "McRae! McRae!" he cried, in a stricken voice. "God! He was standing there! I saw him! Saw him there, where that red-hot boulder fell!"

And the speaker cast distracted hands over his eyes, and staggered away from that flaming tomb like one gone mad.

Almost at the same instant, Rathbone appeared from around a corner of the settlement. His limbs were shaking; his tormented eyes seemed to reflect the glow in the heavens and on the softening snow-fields. Yet his voice was resolute and firm, and his tones were those of command, as he shouted, above the rumbling of heavens and earth, "Make ready, everyone! Hitch up the dogs! Bring out the ice-cruiser! Quick! There is no time to lose!"

CHAPTER XXIX

The Last Resource

AFTER Rathbone's orders had been obeyed, and the dog-teams and the ice-cruiser had been made ready, the whole band of us gathered in the open space in front of the settlement, where the melting snows were red with the reflection of the burning heavens. And then it was that we made a fearful discovery. Three of our number were missing! Not only McRae, but two of his fellows, did not respond to the calls we flung into the night, and did not greet our frantic searching-parties. There was nowhere that they could have gone, for who would venture unattended into the icy waste?—hence it was evident that McRae had not been the only one struck by the missile from the skies.

But we could not waste precious minutes in seeking them. The burnt fragment of a garment, discovered near the crater made by the red-hot rock, seemed final proof of their fate. And, in our panic, we were soon content to abandon the search. Already the downpouring lava, penetrating the gorges at the base of Devil's Peak, had flowed into Frost Lake with a fiendish screeching and hissing; and the lake waters, ice-cold the moment before, were producing clouds of steam. And, at this sight, our overstrained nerves seemed about to snap; each man, in a new-born, ferocious desire to get away, had become like a maddened beast, like a drowning swimmer struggling with the strangling waters.

Now there were but thirty-eight of us—the difficulty of transportation had been relieved a trifle!—thus the more callous of us reflected when the time came to man the laden vehicles and make our way toward safety. But at this moment a vital question arose. Who was to use the ice-cruiser, and who the dog-teams? Matters of life and death might be involved, for the ice-cruiser could cover fifteen miles an hour, whereas the dog-teams might not average fifteen miles a day; accordingly, some of us might reach safety within a few days, whereas others would have a journey of many weeks, ending possibly in starvation on the interminable ice-plains. All this was clear enough; yet Rathbone made it equally clear that three of us would have to journey with each of the dog-teams, leaving thirty-two to escape by the power-driven vehicle.

Standing before us all beside the laden sledges, with the earth occasionally quivering beneath and flickering lights playing intermittently across the heavens, Rathbone stated plainly our position. "I dislike to ask any of you to use the dog-teams," he ended, "but I myself will volunteer to be one of the six——"

"Impossible!" someone cut him short. "Then who will drive the ice-cruiser?"

"Yes, who?" we all echoed. "No one else knows how!"

The argument was unanswerable. Only Rathbone fully understood the mechanism of the complicated machine. And, with bowed head, he had to withdraw as a volunteer.

But now came an unexpected offer. "Let me use the dog-teams!" exclaimed Quin, glancing at the ugly gray shape of the ice-cruiser with a grimace of disgust. "I know best how to use dog-teams!"

And the other Eskimo dog-driver instantly made a similar request.

"Very well!" conceded Rathbone. "You may both travel by dog-team!"

The two Eskimos grinned their satisfaction, and were rewarded with admiring exclamations, for it seemed to the rest of us that they had volunteered to go to their doom.

"There remain four more to be chosen," Rathbone hastily continued, with an occasional glance of apprehension toward the blazing summit of Devil's Peak. "I will not call for volunteers, but will use a fairer method. Suppose we draw lots? Everyone willing?"

There followed a silence which Rathbone evidently construed as consent, for he drew a pencil from his pocket, and began tearing pages from a notebook, on each of which, by the fiery red light of the heavens, he jotted down the name of one of us, excluding only himself and the two Eskimos. Finally, when all the names had been written, he shuffled them in a small box, and, turning to me, made the hurried request, "Rodney, will you draw four slips? Watch carefully, everybody! These four will decide the users of the dog-teams!"

The whole party pressed closely about Rathbone and myself, and for the moment, in our eager interest, we had forgotten even the flame-vomiting skies, and the smoke-filled air and wavering earth. I must confess that I trembled a little as I reached toward the box and drew out the first slip—for who was I that my hand should contain the judgments of destiny?

Several pairs of eyes peered over Rathbone's shoulders with absorbed attention, while hastily he opened the slip, and read, "Thomas Whitney!"

There came a groan from somewhere in our midst, but relief was visible in many eyes.

Immediately I snatched at a second slip, and Rathbone opened, and read, "Arthur Gage!"

Again a groan, and again several sighs of relief.

"William McDougal," was the third name read; and then, while I gave a gasp of dismay, and felt that the world was indeed reeling and falling about me, I heard our leader feebly uttering the fourth name, "Ada Rathbone!"

Even as these words were spoken, I noticed that Allenham, who stood with an intent expression to my right, shuddered as though he had been struck, and moved his lips to speak. But no words came forth, and, after a hesitant instant, his mouth had closed again.

At the same time, I saw how Ada, while pale as death, thrust up her head resolutely, with the manifest intention of accepting her fate.

But to me it seemed inconceivable that she should accept it. "You can't allow it, Ada!" I found myself exclaiming. "You, a woman, can't go by dog-team! It's unnecessary! Let me change places with you!"

She glanced at me with gratitude sparkling in her eyes, but her voice was firm as she replied, "No, Rodney, no! The choice was made fairly, and I will not let you risk yourself for me!"

"But I will not let you go without me!" I cried, fairly beside myself. And then, reading in her compressed lips and stern, determined eyes the finality of her decision, I turned fiercely to another of the chosen ones. "Here you, Whitney! You don't want to go by dog-team! I'm going to change places with you!"

Whitney stared at me as if without comprehension. "Change places?" he demanded, incredulously, although a flash of hope had kindled in his face. "Are you serious?"

"Couldn't be more serious! Come! I know you're willing, Whitney! Let's consider the change made!"

"Seems like a sort of raw deal——" began Whitney; but I cut him abruptly short. And I did not miss his look of relief when he sought a place on the ice-cruiser.

As I completed this conversation, I overheard Norwood in colloquy with another of the chosen men. "You'd be out of your element, Gage. Everyone will be better off if we change places. I've had worlds of experience with dog-teams." And there followed a few mumbled sentences, in response to which Gage grunted a none-too-reluctant consent.

"I prefer the dog-team to the damned ice-cruiser," Norwood called into my ear, catching my glance of inquiry. "Besides, you and I have been through a lot together, Rodney, and I'm not going to desert a pal in the end. And Miss Rathbone, too, may need me."

Meanwhile Allen Allenham, who had been standing by greedily absorbing our remarks, had not a word of his own to say, although I did notice Ada glancing at him with reproachful eyes.

AMID the excitement of the departure, Norwood and I had no time to ask Rathbone's consent to the change in our plans; but he, learning of it even amid the fury of shouted orders and of last-minute preparations, thanked us with a nod and an eloquent shake of the hand. "Take good care of Ada," he said to me. "We'll meet you farther along the road." And those were the last words I was to hear from his lips.

The next moment, he had disappeared through the heavy glass door of the ice-cruiser, and, with a whirring of motors and grinding of metallic chains, the machine had gone jerking and bumping away on its long journey, while behind it trailed the sledges laden with fur-clad men and with provisions. And in its wake, dropping farther behind each moment and soon losing sight of it entirely, trudged we six plodding humans with our dog-teams.

By this time the atmosphere had become so heated that the snow all about us was melting, while even that part of the sea-ice which had not been cracked by the earthquake was splitting into fragments. What if the ice all around the island were too soft for traveling, so that our path of escape had been cut off? Our only course now was to cover the first few miles on land, proceeding westward to a point so far from the eruption that the ice would still be intact. Silently, and with bloodless, ghostly faces, we followed the trail of the ice-cruiser, traveling on foot to save the dogs, and retarded by turn after turn of the uneven shoreline. Here we would circumnavigate a headland that had crumbled away, falling into the sea in an avalanche of ice and rock; there we would observe a fissure left by the earthquake, or a miniature crater where a red-hot volcanic stone had fallen; yonder we would have to wade through a pool of ice-water, newly melted by some flaming brand from the skies. And from time to time the earth would stir and tremble in a sharp, jerky way that would make our hearts leap and flutter; while continuously the roaring and reverberations in the heavens were like the muffled beating

of drums, and continuously the pillar of flame above Devil's Peak, rising like the trunk of some prodigious tree and branching in a wide-reaching crimson canopy of cloud, seemed to us as the handwriting of fate, which urged us to make haste, always to make haste, make haste.

About five miles from the settlement, we observed the trail of the ice-cruiser turning southward along the snow-covered beach and out across the frozen ocean. The ice at this point, while cracked in many places, was solid enough to bear us in safety; and we set out across it unhesitatingly. A final convulsive shuddering of the earth, no more violent than many a preceding shock, served as our farewell to Desolation Isle; and, with the feeling of being indeed adrift, we ventured out across the infinity of ice. Then on and on, hour after hour, till the dogs were near to dropping and we ourselves could hardly remain on our feet, we trudged across that glowing, red-tinged ice and snow. At length, able to proceed no farther, we paused to eat and sleep, while the blazing spout of Devil's Peak looked only a little more remote than before; and as we hastily erected our snow-huts and unharnessed and fed the dogs, we felt, I am afraid, a little envious of our fellows in the ice-cruiser, many, many miles beyond, and already, we thought, almost out of reach of danger.

After eight hours, we arose, very much refreshed; and again hastened unendingly across that changeless desolation, following always in the tracks of our comrades. That day we covered well over twenty miles; and when at last we paused to make camp, we knew that double that distance separated us from the scene of danger. The torrent of fire, however, was still clearly visible—or, rather, two torrents of fire; one over Devil's Peak, and one from the tall glowing cone above the pit; while fitful lightnings still played in the heavens; and the skies, from northwest to remotest northeast, were little more than a chaos of angry, inflamed red.

As we came to a halt and began once more to build our snow-huts, we noticed a sudden brightening in the fires, a strange, ominous flaring of white and crimson lights, as from the discharge of colossal cannon. The next moment, showers of an incandescent, sun-dazzling material shot upward to an incredible height—probably to a distance of miles, for they seemed to reach the level of the stars. And, at the same time, the surface beneath us began to shake and heave, as though pressed upward by some tremendous swell of the waters; and with a terrifying booming and grinding, the ice began to crack.

Speechlessly, and with fast-pounding hearts, we six fugitives pressed together and watched, until stunned by the sight of a vastly more appalling upheaval. Without warning, a flash of carmine light blazed from end to end of the heavens, and subsided; while coruscating white electrical balls, like St. Elmo's fire, danced and glittered at the zenith and halfway down to the horizon. Then, before the first long-drawn detonation had ceased to growl and rumble in our ears, the two flaming cones and the glowing red ridges of the island were blotted from sight; and all the skies were a fury of sparks and blue and yellow darting electrical sheets and stars and hurtling blood-hued firebrands, as though a hundred lightning bolts and a hundred thousand inverted meteors had mingled in one cataclysmic demonstration.

So brilliant was the spectacle that we had to shield our eyes to save ourselves from blindness. So vast was the heat engendered that, even at our distance, we felt the atmosphere growing warm; so widespread the disturbance that we seemed to feel electrical currents in the air about us, shocking us till we were dazed and helpless. But within a few moments, a tempestuous wind, summoned by the rise of heated air, began to blow from the south, cooling us as suddenly as we had been warmed, and saving our lives by solidifying the ice.

It was several minutes before, still dizzy and bewildered, we could glance again toward the agitated north. And then we received a breath-taking surprise. From east to west, the skies were still a mass of glowing smoke and cinders—but where were the two glaring cones? Where were the crimson ridges of the island? Blown to fragments! Vanished utterly! And as we stood there, gaping and speechless, we guessed the whole appalling truth: Desolation Isle had sunk beneath the sea!

CHAPTER XXX

Journey's End

HAD we been a few miles nearer the scene of the catastrophe, none of us would have survived to tell the tale. Even as it was, the cracking of the sea-ice, and the gathering of clouds of dust and suffocating vapors, came within inches of ending our careers. It was by sheer good fortune, and by virtue of plugging doggedly southward in spite of our exhausted condition, that we managed to escape the danger zone, and to preserve ourselves for further hardships. . . .

But I shall pass over the difficulties still to confront us: how for weary day after day we trudged across never-ending ice-fields, struggling around pressure ridges and leads of open water, but following always in the path of the ice-cruiser. Only two events of importance remain to be recorded: one of them fortunate, one tragic, but both stamped indelibly upon my mind.

The fortunate event concerned but one other person and myself. During all those days of dread and torment, amid the deep drifts of snow and the numbing winds and the unlifting darkness, I noticed that Ada strode staunchly along with the rest of us, never permitting herself to complain, rarely seeking to erase her fatigue by riding on one of the sledges. And the ordeal that we endured was such as few women would have borne without a murmur. Even I, better schooled than she in misfortune, suffered profoundly in covering those long, dreary miles; my old ailment was returning, and frequently, at the end of a day's march, I gasped for breath, while there was a dull aching about my heart. Yet this very affliction paved the way for a happy revelation.

One evening, at the end of the day's trail, I flung myself down on one of the sledges in agony, my breath coming by rapid, rasping spurts; and as I lay there, wretched beyond all words, I saw a pair of soft blue eyes staring down at me from beneath a close-muffling fur hood. Even by the feeble illumination of the blubber lamps, the expression in those eyes was unmistakable, and suddenly all my misery seemed to drop from me like a mask.

"Ada!" I murmured, lifting myself to a sitting posture.

"Yes, Rodney," she said, in tones of such sympathy as I had rarely heard from her before.

"Ada, Ada," I blurted out, on an uncontrollable impulse, "this is not the time or place, but I—I want——"

"Yes, Rodney," she returned, gently and sweetly, with a glance of complete understanding. "I know. I too love you."

But when I was about to lift my arms to express

(*Continued on page 277*)

The "Therma" had reported from the time of leaving Venus that elementals were circling over her . . .

Sequel to "Beast Men of Ceres," and "The Cry from the Ether."

Dragons of Space

By Aladra Septama

THIS is the third of a series of interplanetary novelettes by Aladra Septama, who was generally acclaimed a fine scientifiction author by our readers immediately on the publication of the first of these stories, which was entitled, "The Beast Men of Ceres." Although almost all of the characters here were introduced and lived through their adventures alongside of the heroes and heroines in the first two stories, "Dragons of Space" is complete in itself and easily justifies its existence on its own merits. The author, apparently, knows his science and in his imagination he builds for us adventures and escapades aplenty, now in space, now on Jupiter or Venus, and yet again on Earth. The weapon which the author has finally conceived to effectively conquer the enemy is based on a science which is receiving an ever-increasing amount of investigation. "Dragons of Space" is an original story, exceedingly well told.

IT was Spring in the city known as New York, on the planet called Earth. The early birds fluttered in the balmy air, chittering of their seasonal plans, and happy lovers strolled by rainbowed fountains in an evening that was sweet of grass and flowers. The city was immersed in fragrant peace. It seemed incredible that even then there hovered near the most hideous and appalling menace that had ever visited the Sons of Men.

The newly completed Interplanetary Building towered proudly 250 stories above the sidewalks and extended ten below. Its base covered four entire city blocks, with streets running through, and even its highest floors were of generous extent. Each floor had its landing stages for the myriads of aerocars that swarmed about like bees. To the topmost floors of this greatest edifice in the Solar System, Severus Mansonby, the owner and czar of the Mansonby Interplanetary Bureau, had moved his extensive headquarters from the 178th floor of the Atlantic Building near by. They filled the entire commodious 249th and 250th floors, to which they were confined with some difficulty, and only by grace of the fact that a specially constructed part floor with a domed roof, above the 250th, housed the new planetarium. It was fit that the great Mansonby Interplanetary, as it was commonly known, should have the highest floors of this hugest of structures.

In his private office on the 250th floor, then, sat Mansonby, the heart of the vast and intricate network of veins and arteries that carried its vital fluid to every planet from little Mercury, by the Sun, to Great Jupiter, beyond the planetoid belt, and the wide spaces between—the absolute idol of every one of the myriads in his employ.

During one of his rare hours of comparative leisure at command he leaned back in his big chair musing, his lean, keen face wearing a whimsical smile. That was for the fair Adrienne, who had just telephoned him—she, the fascinating mate of his best friend, Zah Ello-ta, the Cerean. Were he not the willing vassal and slave of his own vivacious and altogether adorable Signa Latourelle, and were Adrienne not the mate of his friend, he would have—well, he knew he would have wanted her. The whimsical quality gave way to a very tender one, when he thought of his idolized Signa. Born and reared to young womanhood in Paris, she had continued since her marriage with Mansonby to spend a part of her time there, flying over from New

York in the morning, and usually back in the evening. Therma Lawrence, the wife of his other intimate friend, Calder Sanderson, the eminent scientist, also flitted dancingly through his mind, and his smile was mingled of several emotions—all pleasant. Perhaps, if he could have had neither Signa nor Adrienne——

All three women had participated in the "Cerean Incident," as it was named in the Mansonby records. Indeed, all three had been abducted and carried away by the Beast-Men of Ceres to their home on the tiny planet in the middle of the planetoid belt, 50,000,000 miles beyond Mars. He smiled at the queer twist of Fate that had made Zah Ello-ta, the then ruler of the Cereans, and therefore the chief instigator of the abduction, his best friend and the mate whom Adrienne adored. The three women had also had a part in the difficult and perilous journey to Jupiter, which Mansonby and his fleet of Tellurians and Martians had undertaken in order to rescue the Elder Cereans from the clutches of the half-beast and half-human but wholly vicious and cruel Drugos of the Hot Lands of the Giant Planet.

In these interplanetarian times the mental fiber of the Earth women was more sturdy and tenacious than in the former times. Necessarily so. From the narrow lives of the strait old homes and harems, woman had emerged in the succeeding generations into the broad and often perilous experiences of the allied planets and the dizzy spaces between. Whereas formerly they had traveled about their own country, or at most to the next one, they now journeyed the nearly 400,000,000 miles from Earth to Jupiter. And while retaining all of the gentle and fascinating qualities that appear inherent in all women of all times and places, their spirits were alloyed with a hardier and stauncher strain. They were braver, more fearless, steadier in action and vision. The men with whom they mated in these wider days were of a broader and more universal and heroic type. Again, necessarily so. the Earth men, from confining their activities to their own national affairs, or to those of immediate international concern, had launched out to world-wide activities, and then further still into the more spectacular interplanetary and spatial ones, with the advent of ether travel, and the myriads of perplexing and hazardous events ensuing.

Mansonby's musings were interrupted by a light whirr outside his lofty windows; a swift shadow crossed his line of vision, and a small police aerocar settled upon the landing stage outside. The tall, solemn-faced, somewhat scholarly looking person who alighted was no less than the distinguished General Ulysses A. Cohen, Chief of Police of the "City and State" of New York. Cohen had always interested Mansonby, not only on account of his pleasing personality but above all because he was usually one or two strides ahead of his contemporaries. A solid friendship had arisen on the foundation of mutual respect and liking between the eminent and slightly mysterious police figure and the man of vast activities, whose name from Mercury to Jupiter was synonymous with achievement in his larger domain.

"Welcome, General!" exclaimed Mansonby cordially, as he took his hand. "I was just wishing for some interesting person."

"Thank you, Mansonby," acknowledged the visitor in a voice so deep as to be almost sepulchral; "then I am not intruding. I have only a moment, but I thought I would alight and say 'Hello!' as I happened to be buzzing about your head——"

Mansonby shook his head and clucked his tongue reprovingly. "You thought nothing of the kind, General. Don't disappoint me by pretending your visit is for any commonplace purpose. You've never disappointed me yet."

General Cohen's somber black eyes almost twinkled as he ignored the interruption and went on with funereal solemnity.

"—and as I had a matter I thought you would enjoy talking about." These words were supplemented by a defiant glare.

Mansonby smiled appreciatively. "There! That's better. You begin to interest me. You want a little help about those——"

"I do not, Mansonby." There was so violent a downward thrust of his hand, and Cohen's tone and manner were so sober that a stranger would have supposed him deeply offended. "If I wanted a little help, I should manage to find it elsewhere." A gesture toward the out-of-doors. "We of the police are not without resources. The fact is I want so much help that I am not sure even you can supply it." A deep frown.

Mansonby laughed, and Cohen's face relaxed to a slightly less forbidding gravity.

"Splendid, General! Better and better. All right, then, come across. Your time's valuable. You can omit formalities."

THE visitor nodded and his mobile face relapsed into deep sadness. "Thank you, Mansonby. You are a comfort. I will do just that." He arose and began to pace tentatively to and fro, holding up the index finger of his left hand and pointing at it with the index finger of his right. "Number one——"

"Wait a second, General." Mansonby pushed one of a sea of buttons at his hand, and in a minute Cyrus Marlin entered. Marlin was Mansonby's chief assistant, a man of keen discernment, and himself only a little less famous than his beloved Chief. A generous six feet tall and broad in proportion, Marlin's keen, suspicious eyes flashed sharply to the visitor. The suspicious look yielded quickly to one of pleasure. "Why, General! Glad to see you. Always glad to see you. You usually know something, or want to know something, interesting." The two shook hands warmly. "I fancy this one is going to be good, if I'm any judge of current events."

"I had just coaxed the General into disgorging it," said Mansonby mischievously. "Sit down. I think he means to frighten me, and I feel safer when you're around."

Resuming his pacing, the visitor embarked abruptly on his story.

"Number one"—he again elevated the long, slender left forefinger, indicating it with his right, rather as if it were from there the story might be expected to emerge. "Two men traveling at night on horseback on a country road leading from a small town in France to another a few miles away disappear, horses and all." The speaker was deliberate, appearing to weigh his words as a writer might with a view to elliminating every superfluous syllable in order to accommodate his material to a restricted space. "They had telephoned ahead and arranged with an agent to examine the details of an estate they planned to buy. The section through which they had to pass was a lonely one. On their failure to arrive on time, the agent telephoned their homes. They had left, he was told, immediately after 'phoning him—then three hours before. The ride required a little more than an hour. The agent concluded they had changed their plans, and went home to bed. In the night he was called out of his sleep by an inquiry from their homes. They were to have returned home the same night. Various points along their road were called. They had ridden into a certain town at a certain hour, stopped for a drink, remounted, and

proceeded to ride right square off the face of the planet. That was about two weeks ago—thirteen days, to be exact—and we know precisely as much about the matter as we did the day after their disappearance—which is what I have just told you.

"Second!"—another finger joined company with the index one. "A band of about fifty sheep—*sheep*, mind you!—were feeding in a small night pasture enclosed by a secure fence. This was also in France, and about thirty-seven miles from number one. In the morning all but seven had disappeared. The fence was intact, the gates locked, the soil about the enclosure, which was soft, showed no footprints or signs of any kind that could not be accounted for. No trace of the sheep has been found, nor, although the police combed the environs thoroughly, the slightest clue as to how or by whom they were taken—and you know the French police are both clever and thorough. That was eleven days ago."

At this point, as if in mute refutation of an ancient slander, the speaker abandoned his digital enumeration, putting one hand at his watch chain and allowing the other to hang quietly at his side.

"Third: Just after the sheep incident, an aerocar containing nine persons—four men, three women, and two small children—set out from London for a neighboring city—Southampton, I believe. That was evening. Next morning what is thought to be a part of the car was found floating on the ocean 500 miles away. There were no storm conditions in the vicinity. The passengers seem to have joined the other victims.

"Fourth: Not much so far, you're probably thinking, gentlemen; but see how you like this one: A garden party was in progress at an estate in the environs of Oslo, Norway. As nearly as can be learned, there were twenty-four present—young people. One of the girls went into the house. She was away, she declares, not more than five minutes; probably not more than two. At any rate, on returning to the garden she found that every one of her friends had dissolved like a pinch of salt in a glass of water. They are still dissolved, as far as known. About the lawn had been small tables on which refreshments were being served. Some of these were missing, two broken, one unmolested, and one merely upset. No sounds of alarm or distress had been heard, though several persons were in the house eight or ten rods distant, no cries, screams, struggles, or any disturbing sound at all. Again, no signs—no clue. That was eight days ago.

"Number five: At the Passawampa Gardens, an aerial resort about two miles over the city of St. Louis—but I see you are already familiar with that, as you no doubt are also, then, with number six, at San Francisco—the equally inexplicable disappearance of nearly thirty evening bathers at an outdoor swimming pool on the ocean beach."

Mansonby merely nodded and waited.

"You're wondering where I come in. Two ways. First, the chiefs at St. Louis and San Francisco are both friends of mine, and have asked my advice and assistance; second, the next visit of this wholesale abductor of humans and animals may be to New York, and we are trying these days to prevent crime, instead of merely punishing the offender after the harm is done.

"Now, gentlemen, these instances alone would suffice to show that there is something not only mighty ugly but mighty unusual in the air. The points are widely separated, with an ocean between. In no case has any of the missing ones turned up. In no case have the police obtained the least clue as to method, motive, or agency. Other disappearances keep coming in and we are *stumped!* Absolutely and completely stumped. We haven't even a faint glimmering of a sensible theory. The thing has a maddening element of the eldritch—sorcerous, and at the same time monstrous and unspeakable. That is bad enough, gentlemen. But yesterday we received word from Venus of——"

Mansonby nodded again. "Yes. I've had the reports from Venus." He arose. "All right, General. I'm already making some inquiries on my own account. Keep in touch with Marlin or me."

The General made no move to go. "Have you any theory at all, Mansonby, as to the perpetrators of these——"

Mansonby put up a defensive hand. "I have, General, but I wouldn't want to express it, even to you, until I have a chance to do a little more looking about. Fact I'm expecting some reports any minute."

"Yes, yes, of course. It is a most unusual case, Mansonby. Looks to me like some new interplanetary gang—possibly even from The Outside. Whatever it is, its methods are as extraordinary as they are effective. None of the police has any helpful suggestions to offer so far. We don't mean to bother you about our local troubles, gentlemen. You have been more than considerate of us in the past. But from the Venerian report, it seems to be of more than local import. We have to find a gang that can make away with scores of people so quickly and silently as not to raise an alarm in a house ten rods away. That means gobbling up a crowd of people in one quick mouthful, so to speak. So far as the police are concerned, the method, the motive, the agency—all alike are stark mysteries. Revenge, robbery, seduction, blackmail—nothing fits, and no two cases fit together; yet it is incredible that they are unconnected. Just freaks, all of them. Might be some maniacal obsession, as in the case some time ago of a crowd of Martians who descended on the Earth and wiped out hundreds of people before they could be stopped — and without the slightest interest — just crazy. But that doesn't fit, either. The reports read like a fairly good brand of ghost stories."

Mansonby was still non-committal, merely shaking his head. "It's a bad one, I'll admit, General."

Cohen arose, seeing Mansonby did not mean to be drawn out, but paused at the door, thoughtful. "It is certainly no ordinary band of criminals we have to deal with."

"No, General; in fact, I should hardly class them as criminals at all."

The police chief turned sharply and stared at Mansonby in puzzled astonishment. "Not—criminals——"

"That's what I said, General," was the sober reply.

THERE was a silence during which the police chief continued to stare. "Mansonby, I don't understand you," he finally said, almost sternly.

"Look here, General; you just said the reports sounded like ghost stories, and I agree with you. Now when you find several occurrences unlike any you've ever known, and they yield to no ordinary explanation, are you not justified in at least *considering*——"

"An unknown or unusual agency? Yes, certainly, but I fail to see how that forwards matters."

"Couldn't there be agencies not amenable to our laws? Our laws don't control the whole universe, you know, General, nor even the whole of the Solar System."

Mansonby let the visitor out, and he got into his aerocar and flashed away, pondering the detective's last words so deeply that he narrowly missed colliding with a big aerobus with a jolly party of children evidently bound on an outing.

Marlin looked at his chief expectantly. "You've got the General guessing, Chief. I think he's a little disappointed, too, that you didn't open up more."

"Yes, I'm afraid so, Marlin. I'm sorry, too. General's a good man—a very good man, indeed, and I like him; but I wouldn't dare tell him what my theory is. He'd be having my head examined inside an hour."

"Why, Chief? General's not thick by a long shot."

"No, he is not. But good as the General is—and he is good—his work has been confined chiefly to local planetary matters. In fact, incredible as it may seem, he has never been off the Earth. He still believes the big things are on the ground and space is empty. He'd laugh at some of the things we come to know from knocking about among the planets and the so-called empty spaces between. For example, he'd ridicule the very suggestion of creatures that are neither human nor animal; neither flesh, blood, and bones, as we understand the terms, nor spirit, as we understand that term, but partake of both—and perhaps something else. Weird, unbelievable essences, entirely outside the pale of all usual experience and conception, and yet that are conscious, thinking, and to some extent, at least, reasoning beings."

Marlin raised his eyebrows slightly, drew a chair up to his Chief's desk, sat down, and crossed his legs and folded his arms resolutely. Mansonby glanced slowly at the place where his chair had been, followed its course to where it now was, gave Marlin a quizzical half smile, and settled back into his own chair. He opened his mouth to speak, thought better of it, and pushed a button at the edge of his desk. In a surprisingly brief time Martin, one of his valued assistants, stuck his head in, paused a second, and came in.

"Martin, how long since you've had a report from Tardieux?" asked Mansonby.

"*From* him, not since yesterday; *about* him—" He looked at his watch—"seventeen minutes ago, Chief. I was waiting for the General to go."

"All right, Martin; what *about* him, then?"

"Left Paris yesterday on the orders I gave him and hasn't communicated since. Paris headquarters say he stopped last night at a little town called Bonet, seventy-odd miles out of Paris. He left there some time during the night—or at least he was gone when the porter went to his room this morning—and since then——" Martin spread his hands toward space in general.

Mansonby nodded, dismissed Martin with a wave, and turned to Marlin. "How's the little Jovian girl these days, Marlin?" he asked suddenly.

Marlin started guiltily and turned red. "How's *who*, Chief?"

"Mary Terra Morrison is her full name, I believe."

The big assistant squirmed uncomfortably, uncrossed and recrossed his legs, and avoided his Chief's eyes.

"Oh! I almost forgot to tell you: Mrs. Ello-ta was on the line a few minutes ago. She asked about you."

Marlin was plainly relieved at the change of subject. "Thanks, Chief, that was kind of her."

Mansonby's eyes twinkled. "She said Mary Terra was with her and sent you her—wanted to be remembered to you."

Marlin uncrossed and recrossed his legs again, and looked out of the window.

"Now—what was it Marlin was saying? Oh, yes—about Tardieux."

Marlin breathed a sigh of relief and hastened nervously into words. "Yes—about Tardieux. Hasn't heard from him since tomorrow, he said—yesterday, I mean. I was thinking whether—you don't suppose they've got him, too?"

Mansonby shook his head. "Not likely, Marlin. Tardieux is a hard one to get. Probably running down a clue."

Mansonby answered the interplanetary telephone at his elbow. It was General Maltapa Tal-na, Chief of Police of Mars. Mansonby motioned Marlin to an extension.

"Hell's to pay out on Jupiter, Chief," the voice of the giant Martian thundered across the 50,000,000 miles of space. "I've got to go out there—right away. Leaving in a few hours. Anything to suggest? You know about——"

"Yes, I know, Maltapa. We have some of the same brand here on Earth. Marlin and I were just in consultation. Also trouble of the same kind on Venus, Maltapa. It's bad. Any ideas?"

There was a moment's silence. "N-no, nothing special—nothing you don't know as well as I do. I don't suppose you have forgotten our last little pleasure trip out there. War Chief Rala's up on his hind legs yelling for help. Scores of his people vanished from widely separated places. So Venus is in it, too! Looks bad—Earth, Venus, Jupiter! Looks as if they had broken loose. It's what we have been fearing for a long time, Chief—or at least it looks like it. I'm afraid it's going to be bad. Well, if you have nothing to suggest, I'll be getting ready to go. If you think of anything, get in touch with me."

"All right, Maltapa; watch your step, old Martian! You're *right;* this isn't going to be nice. You know your failing when there's fighting to be done. You can't use your fists on these fellows."

"Oh, I'll be circumspect, Chief. These babies are different from the Drugos. Don't worry about me."

"You're carrying—er—the proper equipment, are you, Maltapa?"

"Sure. I haven't forgotten our talks. I'm also carrying some equipment that isn't proper. It makes me sick, Chief! You remember those two little Jovian twins, Tinata and Tinana, who married my two personal guards? Well, *they're going along!* Can you beat that? There aren't enough men in my organization to make them stay at home—including their husbands. It's no trip for women!"

"Let them go, Maltapa. I have a sort of feeling they will be useful to you. There's no telling."

"O, I'll let them go. I'm not big enough to stop them. And—maybe you're right at that. This is going to be a strange war."

The conversation had been in the interplanetary language, in common use for many years in all communications between the different planets of the Solar System.

MANSONBY hung up and, summoning Martin, bade him inform General Cohen of the substance of Maltapa Tal-na's conversation.

"Well, Marlin, you remember the Drugos, that we had the little argument with on Jupiter over the old Cereans?"

Before Marlin could reply, Martin stuck his head in again. "Octavus Lawrence, Chief. Wants to see you *personally.*"

"Tell him to hand it to you, Martin. I'm busy."

Martin shook his head. "I did just that, Chief, but he says he wants to see you personally, and he's going to, if he has to take the building apart."

Mansonby smiled at the characteristic approach of the imperious interplanetary wizard of industry. "Tell him to start in at the bottom, then, if he doesn't mind. I'm busy up here."

He turned back to Marlin. "You remember our queer and somewhat unpleasant friends who unconsciously helped us against the Drugos, Marlin, I suppose?"

Marlin shuddered. "Well, rather! I wish I could forget them. I never have been more than half convinced that all of us weren't dreaming. Ugh!"

Mansonby shook his head soberly. "Get that out of

your head, old man. We can't blink the facts. We saw them with our own eyes, and I personally scrutinized them rather carefully with the glasses. Besides, they're matter of common report among the Jovians. The creatures are real enough."

"O, yes, as far as that's concerned, I suppose they are. But——"

"Yes—what?"

"It doesn't seem reasonable, Chief. In the first place, it's too cold in outside space for living creatures; in the second place, they couldn't fly out there, because there's no air to fly in. I don't suppose they have electronic engines. In the third place——"

"All right, Marlin, we'll get at those things in due season. I want you to know all about them, because we have to deal with them *right now*. This looks to me like the worst things we have ever gone up against. It *might* happen, you know, that they would get me, in which case you would be the one the organization would look to."

. . . an aerocar containing nine persons . . . set out from London for a neighboring city—Southampton, I believe. That was evening. . . .

Marlin's face went amazing tender for one so huge and so muscular. "Don't talk like that, Chief. I—I—don't like it. If you go, I go, too. But—you're right about it, Chief. I guess I'm just a coward." He turned to look the other squarely in the eyes. "Chief, I'm *afraid* of the damn things!"

Mansonby thrust out his hand impulsively. "Shake on that, old tiger. So am I—terribly afraid of them—desperately afraid. But we must remember that the whole solar system depends to a greater or less degree upon the Mansonby Interplanetary. Our lives—yours, mine, Maltapa's, Rala's, and every mother's son of us—our lives have to stand between them and harm. If we have to spend our lives right down to the last man of us, why we have to, and that's all there is to it. As a matter of fact, I'm fearfully worried about Maltapa and his men, in spite of Maltapa's undoubted power and cleverness. They're on their way to Jupiter right now to meet these elementals. We ought to be with them; but how can we be? Our hands will be more than full right here within the next few days, if I'm not badly mistaken."

"Yes, I understand, Chief. Maltapa's apt to be impulsive, but Lord! he's magnificent when he's in action. Man, man! When I think how he and his Martians waded through those Drugos! But let's get started at this thing. You were going to say——"

Mansonby reached into his desk and brought out a thick pamphlet of bound pages. "This, Marlin, is the translation by Professor Arrata Mela, the Jovian linguist and scientist, of the voyage of the people of the planet Ekkis to Jupiter, many many years ago. You may take it as completely authentic. The ship is there on Jupiter today. The people of the Ekkisian cities of Jupiter are there. You might read it over some other time when you get a chance, just for what you can get out of it. But there's one little part I want to read to

you right now, because it's material here. It's only a page or two."

The door opened at this juncture and a distinguished-looking head thrust partly through. "Am I intruding, gentlemen? If so, good-bye. Martin was good enough to let me come right in."

Mansonby made haste to welcome the visitor, clasping his hand warmly, seconded by Marlin. "Martin knows his stuff, Sanderson. You're the very man I was wishing for. Have you a little time to spare us?"

"Well,"—the famous scientist looked at his watch—"let us say half an hour. I have an appointment with Ventrosino, and you know how he likes to be kept waiting. I thought I would just about have time to look in and see if the Mansonby Interplanetary was behaving itself—or themselves, if you like."

"Sit down, Professor. This is not private at all. It's about those recent disappearances. Marlin and I were discussing the elementals and I was about to read a little paragraph from Professor Mela's translation of the voyage of——"

"Yes, I'm familiar with that. Go ahead."

Mansonby found the page and read:

"I am Narrit, the Observer of the ship which has been called Oomir of Ekkis. I have seen strange and terrifying things, of which I have not spoken, even to Oomir, our Commander, as I have not wished to trouble anyone without necessity. Only to Elnis have I spoken. Elnis is my co-observer at the glasses. He also has seen, but we have kept our own counsel. Once when we were about half way from Ekkis, I saw what I thought at a glance was a far-away light cloud; but after a while, when my eyes were fixed on a star, I saw that this thing had come between and shut out the light of the star. To this puzzle I could find no answer, nor more could Elnis, and as we saw it no more at that time, we put the occurrence out of our minds. Whatever it was, it must have been far away. But many years afterward we both saw it again, this time closer at hand. There were vast, faintly luminous shapes—or aggregations of many shapes, we could not tell which, but I think the latter. There seemed to be many of them, and we saw them on different sides of our ship. They seemed to come from one side, to accompany our course a while, and then to depart on the other side. We saw them no more until just before and just after we boarded the strange dead ship. But they came no nearer than the second time, and we could learn nothing more about them. So, while Elnis and I conjectured much about them from time to time, we still held our counsel. We saw no more of them until we were within a few trillion miles of Esteris (Jupiter), since which time we have seen them frequently, although they have never come near enough to the ship to be noticed by anyone who was not at the glasses. If we reach Esteris in safety, we have decided to file this away with the records of the ship, so that it may give its evidence, perhaps after we have passed away, in case any occasion shall ever arise when the advancement of wisdom may require it.

"(Later)—They have been so near that we can now say they are groups of immense shapes, always shining faintly of their own light. We are only hoping that if they are intent on mischief it may not be directed our way, since we have arrived now so close to Esteris.

"(Later) We have found out what the strange things are, but do not wish to put a name to them. They are now always seen either passing in the direction of Esteris, or else coming from that direction. We are only hoping Esteris is not inhabited by them, for if it is there is no hope there for us. We are both putting our names to this for verification, in case it ever comes to the light."

Mansonby put the document down. "The statement is signed by Narrit and Elnis. Now, Professor, I wish you would tell us what you know about these so-called elementals."

Sanderson hesitated, shook his head dubiously. "That is rather a task, Mansonby. It is true I have made some little study of the subject, but only casually and with more particular reference to its bio-physical aspect—that is, as an item of current bio-physics. To give anything like an intelligent answer to your question it would be necessary to go rather deeply into the general composition of matter; the fundamental principles underlying what are usually referred to as physical or material things, and what are sometimes but inaccurately termed metaphysical or immaterial; to elucidate the nature of, and the character of the association between the so-called material and the so-called spiritual. My time just now is insufficient for that, Mansonby. However, it just happens that I have a sort of thesis on the subject, which I will have sent up if you like. That would be better for your purpose than any loose remarks. Its subject is not elementals. It is primarily a treatise on the general constitution of matter, sentient or otherwise, but it was leading up to the elementals."

"Do that, Professor. It will be appreciated."

Sanderson telephoned for the article in question to be sent up and excused himself to keep his appointment with Astronomer Ventrosino, reminding them as he went out, with the usual caution of the scientist, that the matter really lay outside his domain, and the writing should be regarded as a "lay" writing rather than a professional one.

WITH the departure of Calder Sanderson, Marlin was called away on other matters for the time being. During his absence a message came through from Tardieux, Mansonby's French operative, who was pursuing the investigation at the scene of the disappearance of the two horseback riders in France. Following up certain rumors from the region, he had gone into the mountains a hundred miles from the actual scene. Here he had found a mysterious thing that for want of a better name he called a skeleton. It was roughly the shape of a rather deep and rounded umbrella-top, and 78 feet in diameter. The thing was not a skeleton in the sense in which the word is usually applied to the bony structure of an animal. The creature had had no bones, and the remains had the appearance of a burned-out honeycomb of tissue paper, consisting for the most part of a delicate feathery ash, white or grayish white in color, barely substantial enough to retain its shape. He had taken several pictures of it, where it lay in a sheltered place among the cliffs, which was fortunate, for shortly afterward a gust of wind had blown the greater part of it away.

The parts remaining consisted of delicate but extremely tough, fibrous membranes, appearing semi-metallic with a strong coppery content. These fibers had circled the body many times and connected with four complex masses, one on each side of the center. These were roughly circular with a diameter of something less than a foot and in turn connected with a central mass a trifle over three feet in diameter.

Tardieux's supposition was that the creature had been struck by lightning during an exceptionally violent electrical storm which had recently occurred in the locality where it was found.

That was the extent of the French operative's report. He had found no other sign or clue, and had no suggestions to offer. He merely reported the facts as he had found them. The pictures had been sent by radiophone with the report, but had yet to be developed.

Pending that the document promised by Professor Sanderson arrived, and Marlin coming in a short time afterward, they sat down to read it. It bore the title, "Reflections on the Constitution of Thinas," and launched into the subject without preface or apology. Clearly it was written by Sanderson for his own use. There was a sub-title, first, "Electricity the Base of Everything." The article proceeded:

"Electricity is now known to be the essential basis of everything that is—whether what we call 'material' or 'physical,' or what we call 'immaterial' or 'metaphysical'; whether the body of a man, or that other invisible, intangible thing we call variously life, mind, soul, spirit, or consciousness; whether the particles of denser composition we call worlds, or the fluent and tenuous medium in which they move. All things analyze or dissect down to atoms. This has been known or suspected since the days of the Greeks Pythagoras, Leucippus, Epicurus, and the Roman Democritus, pupil of Epicurus, 2500 and more years ago.* And atoms are made of not a thing but negative and positive charges of electricity—electrons and protons. In the denser formations, the molecules are merely closer together than in the rarer ones. By the application of heat to solids, the molecules first have their attraction for one another reduced, then are forced apart by vibration, and they generally first become liquids and then gases. By the application of cold (which is nothing but a *lessening* of *heat*) to the fluids and gases, the vibration decreases, the molecules draw back nearer together, and they become liquids and solids."

"Everything that has life, whether animal or vegetable, is made up entirely of cells—each cell consisting of forty-eight parts. These cells are *electric cells*. In a man there are close to 30 trillions of them. It follows that man—bodily, mentally, and spiritually—is electric."

"And what is an electric cell?"

"One type of inorganic cell is made up of a jar filled with a certain liquid, or electrolyte, having a piece of zinc at the top and copper at the bottom. The zinc terminal is the negative pole or electrode of the cell; the copper terminal the positive. At each pole a difference of potential exists between the fluid and the pole. Connect these two electrodes outside the jar by a wire and a current of electricity will flow. How does it flow within the liquid in the jar? Why, particles of the zinc, called ions (wanderers or travelers), are dissolved and pass between the poles carrying the current. The liquid around the positive plate or anode dissolves it; that around the cathode or negative releases hydrogen. This makes a difference of potential, which is what 'makes the current go.' So long as it exists, the cell is operative—produces, or is capable of producing, current. When it ceases, the cell is dead—inoperative—can produce no current.

"Every one of the 28 to 30 trillion cells in a man's body is a prototype of this inorganic cell. There are the corresponding elements; there is the same mechanism for the production of a difference of potential; the same difference of potential; the same facilities for storing static electricity. So long as this difference of potential exists, the electricity, or biotic energy, called life is there—the man lives; when it ceases (that is to say, when a positive acidity is established), the man dies—or, rather, is dead.

"The electrical nature of life includes all such phenomena as emotions, thought processes, memory and the like. And electricity being a material thing it follows that there is no immateriality. A thing is either material or it does not exist at all. Even energy is material, because matter goes directly into the making of it—it is transformed into it, and retransformed into matter. What we sometimes deem immateriality is merely a gradation upward beyond the range of our perceptions; but though it passes our perceptions it never passes materiality. Is there, then, no such thing as mind, soul, spirit? There is, by all means, but they, too, are material,† although of too rare a substance for our senses to cognize—a sort of particled, or disembodied matter, which is capable of freely permeating and traversing the solider forms.

"There are dense and rare media; some we can see and feel and some we can not; but each medium is inhabited by its own distinct kind of organic, and perhaps sentient, creatures, varying with the necessities and limitations of their habitations. And as with the media, so with the inhabitants; some we can see and touch and become acquainted with; some we cannot, and remain in ignorance of."

HERE there was another sub-title, "Material Things Only By-products of Space."

"At first everything was gaseous, or at least of some rare consistence; then, in ways we are not wholly familiar with, whirls or eddies took place in these gaseous organizations, and after inconceivable periods became more condensed and solid—got to be what we call 'material things'—suns, planets, vegetation, animals.‡ But these are an infinitesimal part of the whole; merely the exceptional, and more or less casual by-products of space. They never were the important things; never concerned the real activity, which would continue though all 'material things' were dissolved.

"We are learning that the real activities of Nature are in what has been dismissed as 'empty space,' and it is there scientists have gone to seek them. It is there the important acts go on, the vital things occur. Far from being 'empty,' space is more vibrant and vital than the so-called 'material things.' The more tenuous things have assumed the major, the denser ones the minor, rôles.

"The laity still think the denser things the more real, and deny intelligence or consciousness to those more or less compact than themselves. Yet they themselves admit the mind or spirit to be the real thing, though itself as tenuous and elusive as the ether of space. Without it the body would be a dead nothing, and 'conscious existence' a myth.

"There is greater likelihood of mind existing in the rarer forms. The ether and the mind are closer kin; possess more homogeneous attributes; exhibit liker properties; are better fitted to deal with the kindred forces of magnetism, gravitation, light, space, time, and hence are more congenially companionate.

"The fact that some of this 'life' stuff is closely linked with animal bodies does not imply that all of it is. I have personally no doubt there are sentient, and probably reasoning, beings so rare we do not sense them at all."

Here Mansonby read with satisfaction the title, "Elementals."

"An instance in point is the so-called 'elementals.' Their bodies are more tenuous than ours. The 'mass' contained in the body of an elemental a hundred feet in diameter is thought to be much less than that in the body of a man. And yet they are powerful. They are to some extent reasoning beings. They can choose one thing and refuse another. They remember and

*It is probable the Greeks borrowed their atomic theories from the still more ancient Hindus.

†This is so far from being new or revolutionary that we find it laid down in the "Angutarra Nikara" of the ancient Hindus that mind or consciousness is atomic in structure.

‡The reader may consult Plato's Timaeus, Aristotle's Metaphysica and Physica, De Anima and De Coelo, Diogenes Laertius's De Vitis, and many other ancients, all following the earlier Hindus (Probably).

learn by experience. The stuff of which their *life* is made is the same stuff of which our *life* is made; for life, being an electric potential, is universal.

"Said Bouvier, 'There is nowhere any distinct break in the evolutionary series—no fundamental distinction between the animal and the human mind. Protoplasm is protoplasm, wherever found, and mind is mind wherever it becomes manifest. There can no more be two totally distinct and fundamentally different kinds of mind than there can be two or more totally distinct kinds of protoplasm, one human, the other sub-human. The Amœba and Man are both the product of protoplasmic differentiation, and the primordial protoplasmic cell embodied in its substance all potentialities of Life and Mind upon this planet.'

"The elementals have been assumed by some to consist of disembodied matter, by which is meant, not any vague, metaphysical thing, but matter having its electrons and protons dissociated, so that they are no more matter in the ordinary sense than planets deprived of their sun would be a solar system.

"In order that readers may keep their minds clear, they are again reminded that in all matter, the electrons revolve about the protons, or nucleus, at enormous distances—compared with the size of the electrons themselves. Roughly, the diameter of the electron would bear about the same ratio to the diameter of its orbit as the diameter of the earth to the orbit of the planet Neptune—or as one to 350,000. Therefore, vastly the greater part of the area between its orbit and the nucleus is 'empty space'—space where there are no protons or electrons.

APPLYING these facts to the body of a man, we find that only about one-billionth of a man is 'solid matter.' (The body of a man contains about 10^{31} electrons—10 followed by thirty ciphers). The remainder is space, and if this were eliminated by packing the electrons against the nucleus, several men could be placed inside a sphere the size of a pea, with plenty of room for their activities.

If, then, an elemental a hundred feet in diameter contains less solid matter than a man, it must be rare indeed. Probably much less than one-trillionth of it is solid matter.

Sanderson's document continued: "Now during life there is always a certain electric potential in our bodies, which at times becomes an electric current. When light falls on the retina of the eye, an electric current is set up along the optic nerve. True, this bodily electricity is insufficient, with our present learning, with which to move our bodies about in space; but if we were as rare as the elementals, we might use it for motion through space by hooking up, as it were, with the electromotive force of the ether. Doubtless the elementals possess within their rarefied bodies the mechanism for this hook-up. Since, unfortunately, no elemental has been examined at close range, we can only speculate for the time being.

"We have laid too fast hold of the conception that a reasonable being must breathe the same air we do; be sensible to heat and cold in the same degree; have physical organs, forms, and attributes similar to our own; be subject to the same limitations of atmospheric pressure, gravity, and the like. But in truth, *mind* has little to do with these things.

"There would appear no logical argument against a gaseous creature as reasonable as we. Such a being would approach the ordinary conception of disembodied spirits or ghosts, its inexplicable colligations of gaseous atoms taking the place of our bones, muscles, and tissues. It would have the mental or spiritual element highly ascendant over the physical and (Query?) might explain phenomena relating to demonry, familiar spirits, wizardry, moods, and the like. These things have usually appeared in epidemic or periodic surges, possibly corresponding with the unsuspected presence of such beings."

Mansonby finished reading, laid the manuscript on the desk before him, and looked inquiringly at Marlin.

"Good, isn't it?" he asked.

Marlin nodded after a moment. "If you like it, I'm for it, Chief. If it's an examination paper, let's see if the answers are in the back. There's a point or two I don't quite——"

Martin brought in Tardieux's pictures of the burned-out remains of the strange creature. The negatives had been so clear that though greatly enlarged, the details were still visible.

Martin started to go out. "Have you a little time to spare, Martin?" asked Mansonby.

Martin hesitated. "Y-yes, Chief, if you need me; but I'll have to go first and give some directions to Hertzstein and Kung Foo Sze; then I can get away a while, I guess."

"Well, never mind right now; later will do. Have Ellis see if Ello-ta can come up, and if he can tell him to bring Mrs. Ello-ta and Miss Morrison."

Marlin had looked up suspiciously at the naming of the women, and reddened like a girl when Mansonby's glance flashed his way at the name of Miss Morrison.

It will be remembered by those who have read the former relation called "The Cry From the Ether" that Mary Terra Morrison was born on Jupiter; her father was Samuel Morrison, formerly of New York, who many years before, with a party of other scientists, had been first to accomplish the dangerous crossing of the planetoid belt, between Mars and Jupiter. Unable to return on account of the accidental destruction of their vessel in landing (the facilities not being available to rebuild it), he had reconciled himself to the loss of his native Earth, married a Jovian woman—Mary Terra's mother—and settled down among the Jovians, where he had become respected and honored, and eventually elevated to the high position of head of the National House of Science, at Kolata (or Collata), the capital of the South Polar Region. He at once appointed as his assistant his fellow voyager, John Hudson, of San Francisco. Morrison's beautiful Jovian wife, Marela, he had called Mary, and when a daughter came, had named her for her mother, adding the name Terra in honor of his own native planet.

When Mansonby and his fleet of Tellurians and Martians had made their way to Jupiter to rescue the aged Cerean people, who had been carried away from their home on Ceres by the cruel half-beast, half-human Drugos, of the Jovian Hot Lands, Morrison and Hudson were overjoyed at being reunited, after so many years, with members of their own race. During the engagement of the fleet on Jupiter, Mary Terra had formed so delightful a friendship with Signa Latourelle, the fascinating and piquant Adrienne, and the intelligent and interesting Therma Lawrence, that she had accepted their urgent invitation to return with them for a visit to her father's native world. During the trip to Earth, she had also become acquainted with Cyrus Marlin.

Of an unusually sweet and gentle nature, she had so endeared herself to her Terrestrian friends that they had steadfastly refused to listen to her leaving them; Adrienne, in particular, had suggested, in her usual mischievous vein, that it was her duty to remain, because the big Marlin could so ill be spared by Mansonby. Whereupon Mary Terra had unblushingly declared Cyrus Marlin to be "the dearest big child on Earth or any other place," and Adrienne had responded

with the injunction to grab him quick. "Because," she added, making a face at her husband, "if anything happened to Zah, I should marry Cyrus—which would be unpleasant for both you and him."

All of which would have wofully embarrassed the bashful Marlin if he had heard it.

It was precisely during this conversation that Ellis' summons had come, and the three prepared to go at once to the Interplanetary Building, Adrienne professing curiosity as to whether the present call was of martial or marital concern.

UPON their arrival Adrienne had danced gaily across the floor to plant a sisterly kiss on Mansonby's mouth, and then gone to offer her hand to Marlin—with such a devil in her eye that none but the innocent Marlin would have missed her sinister design.

"Mr. Marlin," she said reproachfully, standing close to him, "why do we not see you at our place? You haven't been——"

"Why, I'm sorry, Mrs. Ello-ta, but you know we have been so b-b-bus——"

It was done. Adrienne had planted a malicious kiss directly where it interfered most with Marlin's enunciation, much to his discomfiture. Then she made a face at her husband's fondly tolerant smile, hastily took possession of the chair in which Mary Terra was about to seat herself, forcing her to sit next to Marlin, and settled herself with profound gravity to listen.

Mansonby considered a moment before speaking.

"Zah, I've called you here for several reasons."

"All falling, I presume," interjected the Cerean, "under the general head of elementals."

Mansonby gave him a look of pleased surprise and a nod. "My dear fellow, you're not at all dull, are you?"

"O, no," agreed the Cerean, his intelligent face wearing a humorous half smile as he turned pointedly toward Adrienne and added "not any more."

Whereat Adrienne arose to bow mockingly.

"And the women, Mansonby—I imagine you specified them in your invitation for reasons that—well, that we both understand."

Mansonby looked at the Cerean with frank admiration, and Marlin withdrew his eyes from Mary Terra to stare at him with equally frank bewilderment.

"On account," Ello-ta half stated, half explained, "of their possession of certain mysterious electric potentials, or mental qualities, that we men are not endowed with, and——"

Mansonby gave a little start, as at a new and pertinent idea.

". . . and," the Cerean continued, "because those qualities are likely to lend themselves very efficiently to our contest with beings against which our usual weapons would probably be of—er—little use. Well, Mansonby, old sleuth, you're intelligent, too. You've summoned the two for the job."

If Mansonby had been startled by the clear penetration of the Cerean, he was still further so at the words of the distractingly pretty, and usually light-hearted Adrienne.

"Yes, Mr. Mansonby," she said, "Zah is right. I do not quite see yet just how we shall act, but there can be no doubt as to the eventual unification of the thought power with the various other forces of Nature. Mary Terra and I have given much time and thought to our rôle. From long, and, I may say, fairly successful, experience with Zah in his telepathic experiments, we have developed certain forces to the point of—some efficiency, and discovered others we did not suspect we had—or anybody else. You gentlemen proceed in your own way, and M. T. and I will work away in our way."

Mansonby nodded respectfully and turned to Ello-ta. "I don't suppose you have had access to an article of Sanderson's on the subject of——"

"Elementals? O, I have," interrupted the Cerean. "Adrienne picked it up in her omnivorous reading and brought it to my attention."

"Good. Then you might look at these pictures."

Ello-ta gave a half glance in their general direction, and a lazy wave of the hand. "Tardieux's pictures? Yes. Interesting, aren't they?" He grinned humorously, with another almost imperceptible wave of the hand, at Mansonby's expression. "I procured copies by—a few minor perjuries—I procured copies, and—er—I've been interested."

"Then I suppose you don't mind one more perjury by admitting that you thoroughly understand them."

"O, no," he replied, with one of his characteristic and favorite ambiguities; then, "I suppose my theories are about the same as yours—since they are the only tenable ones." His lips twitched as he added enigmatically, "with one or two exceptions. In fact," he went on after a second's pause, "I was going to furnish you a little Martian treatise of a very ancient date. I meant to bring it, but—I couldn't find it at the moment. Elementals, of course."

Adrienne fumbled in her bag, brought out the treatise in question, and offered it to her husband. "I—cr—foresaw you would forget it, darling," she drawled languidly, "so I"—she finished with a perfect imitation of Ello-ta's indolent tone and wave.

There was a laugh all round, and Ello-ta put the packet on Mansonby's desk for future consideration.

Adrienne looked thoughtful, and arose. "If you could excuse M. T. and me, Mr. Mansonby. Signa is about due in from Paris, as you know, and she's coming to our place about—something. And——" She hesitated in mock timidity, with a glance in Marlin's direction, "could you spare Mr. Marlin a few minutes to take us home? I know Zah won't be going for such a long while, and—I feel afraid. Some of those elemental things might——"

Mansonby, knowing full well that neither Adrienne nor "M. T." knew the meaning of fear, yet nodded slightly at Marlin. "Might as well get used to it, Marlin. And—take your time. Maybe you'd better stay and guard them till Zah gets back. We can't afford to lose them—not till this thing is over, anyway." Mansonby winked at Ello-ta, whose face continued as grave as a funeral.

Adrienne kissed her husband, whispered something in his ear, and the two girls went out, accompanied by the big Marlin. At the door they met Calder Sanderson and his wife. Sanderson remained, and Miss Lawrence excused herself to go with the two girls and Marlin.

Mansonby, Ello-ta and Sanderson set themselves for a careful appraisal of the Tardieux pictures.

"M-m-m—tissue extremely rarefied," mused Ello-ta. "Looks like burned-out tissue paper honeycomb for all the world. Yes—lightning might do it." He pointed at the denser areas. "Short-circuited? Might be. Who can tell? Rarefied tissue just burned to nothing. I understand the greater part of the skeleton, if I may use that word, did blow away with the first breeze."

Mansonby nodded. "Yes. That's correct. And—you see these fibers passing round and round the skeleton, and connecting with the denser central parts?" He turned to Sanderson. "That bears out your theory?"

The scientist considered. "Possibly, possibly—or I may even say, probably."

Ello-ta clucked his tongue at Sanderson. "You're so rash, old fellow!"

They discussed the photographs for some time longer,

and then Mansonby referred to Sanderson's article. "Did you have any particular scientific basis—any special authorities—for these extraordinary propositions you make, Professor? Or were you just——"

"Vaporizing? O, no. Most of it represents the conclusions of others than myself, from the ancient Hindus and Greeks, 3000 years ago, down to the present time." He was carelessly turning the pages as he spoke. "I see there is some little confusion here. I have said that all things are 'material,' and then seemed to draw a distinction between material and spiritual. I am afraid I used my words rather loosely."

"I understand. No, I think there is no real confusion, though a new vocabulary would be convenient in stating the matter. Now, since the elementals are mostly wind, we might say, what would be the effect of bombarding them with gunfire, in your opinion?"

Sanderson shook his head. "I do not know; but my guess is the effect would be to use up ammunition."

"And explosives?"

"Explosives? Well, explosives might blow them away a short distance, but the air rushing in to fill the momentary vacuum might draw them back where they were, and possibly—indeed probably—uninjured."

"Rays?"

"Heat rays they might be insensible to. Electric rays might——"

Mansonby turned to answer the ground phone. It was Marlin, and a very much perturbed Marlin—speaking from the Ello-ta home.

"Chief! For God's sake! Something terrible is happening! The women have gone crazy!"

"Crazy? Marlin, what are you talking about?"

FOR a moment there was silence, and Mansonby had about concluded the connection was broken. He tripped a small switch and connected the television. Upon the panel three feet by six at one side of his office flashed the strangest scene the three men had ever seen. Therma Lawrence lay on her face on the floor, weeping wildly, hysterically. Marlin was holding a fighting, kicking, struggling Mary Terra firmly with one arm, while striving to grasp Adrienne with the other. Adrienne evaded him agilely, her face a mask of indecipherable emotions. She was surely far from being her own gently mischievous self. Apparently Signa Latourelle had not yet arrived. As they gazed in stunned amazement, Adrienne, eluding Marlin's outstretched hand, made a mad dash for a window. With a mighty bound he was after her, catching her clothing barely in time to keep her from crashing through to the sidewalk, hundreds of feet below.

"For God's sake, *hurry*, Chief!" pleaded Marlin. "I can't keep this up forever. One of them will get away."

"Wh-what are you trying to do with them, Marlin?"

"Trying to *do*?. I'm *trying* to keep them from jumping out of the window! They've all gone crazy, I tell you!"

As they watched, Adrienne suddenly sagged limply on Marlin's arm. Therma Lawrence, with a convulsive sob, relaxed and lay still; Mary Terra ceased fighting and lay quiet on Marlin's other arm. There were a few moments of dead silence, Marlin looking about helplessly. Then he carried Adrienne and Mary Terra bodily to a couch and lay Adrienne upon it, apparently unconscious. Mary Terra revived slightly and raised her head heavily, as if in a daze.

"Thanks, Cyrus, dear. I'm—I'll be—all right—now, I think."

The big detective helped her to a seat and released her grudgingly, watching her anxiously. "What's—are you sure you are—what was the——"

He turned to the television panel, breathing hard. "I think you had better hurry over here, Chief. I don't know what happened, but if it happens again I don't want to be alone with them."

"All right, Marlin, we're on our way." He cut off and rang for Martin. "Martin, get General Cohen and ask him to call me at Mr. Ello-ta's at once," he flung back at him as he went out, and with Ello-ta and Sanderson, leaped into an aerocar and flashed away. Mansonby, at the controls, drove with a cool savagery that made his passengers gasp and reach hastily for solid holds. With a master hand he avoided the traffic, shooting like lightning above, diving sickeningly below, flashing to the right or left, avoiding collisions by magic, breaking every traffic law on the books. Once there was a light scraping as he flashed perilously between two aerocars, and a volley of curses from startled drivers followed them—so closely did Mansonby measure the inches between them and destruction. Several air police dashed sternly after them, but turned back on recognizing the car as belonging to the Mansonby Interplanetary. They made the twenty-seven miles in eight minutes under traffic conditions.

As they entered, Therma Lawrence was just recovering consciousness. Adrienne still lay quietly where Marlin had put her. Mary Terra and Marlin were standing near each other.

Ello-ta hurried to Adrienne.

"She'll be all right, Mr. Ello-ta," said Marlin gently. "I'd just let her lie quietly until she comes to."

When everything was straightened out Mansonby looked at Ello-ta and Sanderson with a meaning glance, which they both received with a nod. Ello-ta spoke.

"Yes, Mansonby, you're right; but I suggest we conceal nothing from the women. They aren't the sort to faint over a mouse. They've been through a rather ghastly experience, and we have Marlin to thank for their lives. They'll want to know all about it."

But explanations proved quite unnecessary. The women realized as well as the men. They had been caught off guard by the malign, demoniac influence, which, on account of their marvelous sensitivity to thought-force, had driven them mad and forced them to do what they would have been the last to wish. At any rate, they were interrupted by the telephone. General Cohen was on. He had phoned Mansonby's office even as Martin was striving to get him and been put through. Evidently, although his voice was calm, he was having something of a time to keep it so.

"Mansonby? Why, Mansonby, one of my air guards in the five-mile level has just reported some strange object over this territory—a circular something of considerable size. And—get this! He says it is *alive*—an animal, not a ship. It seemed to be just hovering over—cruising back and forth. Personally I think the man's crazy, but of course it might be some foreign ethership, and we can't afford to——"

"Yes, I know all about it, General. That's what I was calling you for. What measures have you taken?"

"You *know*! How *could* you know, Mansonby? The guard is out of sight above the clouds, and I only this moment got his message."

"Oh, the Interplanetary has ways of finding out things, General." Mansonby could not resist saying it, though he felt mean about it the next instant. "What measures have you taken?"

"Measures? Why none, Mansonby. What measures should I—I'm afraid I don't know what you mean—measures?"

"Mean? I mean, General, that the answer to the problem you brought me has arrived and is now over New York. I mean the worst kind of hell is to pay. I'd advise you to order all aircraft down—in a hurry. Send out a general emergency, and see that it's obeyed *at*

once! This one your man saw is probably only a scout, and it means others will be along—probably very soon. I wouldn't tell the public too much; they might get panicky. I'd warn everybody to—no, it's not feasible to keep them all indoors yet, I suppose, without explaining why. They wouldn't stay. Well, tell them the police believe New York is threatened with an invasion from a mysterious foreign foe from The Outside, and that the danger is imminent and very grave indeed. If you don't feel like shouldering the responsibility for that, tell them I said so. Meantime we'll have to take the best measures we can to protect them. See that they keep out of the air. That's the main thing for the moment—all but the big ships. I think the big ships will be safe. I'm disconnecting so as not to delay you."

"Mansonby! Listen to me just a moment, will you? I chance, whether wisely or unwisely, to be the Chief of Police of the city and state of New York—a fairly responsible job. Something comes up that you seem to think is a grave menace. You suggest that I give drastic orders—orders that it will take every man I command to enforce. Do you think it is either wise or fair that I be kept in the dark as to——"

"No, I don't, General. I'm leaving for my office at once. I'll be there in fifteen minutes. Come right up and I'll tell you all I know. Meantime, if you don't feel like giving the order, I'll send it out myself, as an interplanetary officer whose orders the local police have no choice but to obey. There's not an instant to spare, General, but it's a poor place to go into details of this kind on the telephone. See you in fifteen minutes, then."

HE hung up without waiting for any further reply. Seating himself at a writing table, he took from a small folding pad in his pocket several official-looking sheets of paper and wrote thoughtfully for ten minutes, stopping occasionally to consider. At last, apparently satisfied with what he had written, he went and stood by a window with his hands clasped behind his back, his eyes seeing nothing of the gigantic city that stretched away out of sight in all directions below. Without turning, he asked Ello-ta to get through to his office and have them inform General Cohen that he would be a little late. While Ello-ta was complying with his request, he found an envelope and slipped the sheets of paper into it. Leaving it unsealed, he wrote something on it, took a pocket stamp from his pocket and impressed it on the front and back of the envelope. The design showed an ether-ship, having a square cut into it bearing the words "Mansonby Interplanetary Service." It was the Mansonby insignia, known from one end to the other of the Solar System. The impress bore the additional words in small type, "This insignia is good for $100 at any Mansonby office if uncanceled." While this made it practically certain that any message bearing the stamp would be returned if lost or mislaid, it also made it necessary to guard the contents zealously and to cancel the stamp once its message was delivered.

Mansonby beckoned Marlin to one side and held out the envelope to him, showing him that it was unsealed. "Marlin, old man, will you get about this as quickly as you can, please? You will read this, of course. I'm sorry to put this on you, but—I don't like to trust it to anybody else."

The two conferred aside for some minutes in low tones before returning to the others.

"Take our car, Marlin," said Mansonby in dismissal. "We'll use one of Ello-ta's. And *fly low!* Right down close to the ground—and keep your eyes open. On no account venture higher than you are absolutely obliged to. All right, old chap, on the job, and good luck."

Marlin smiled and nodded at the others and turned to leave.

Mary Terra arose and went swiftly to put her hand on Mansonby's arm. "Please, Mr. Mansonby," she pleaded softly, "there's danger for Cyrus in this matter, I know—grave danger, isn't there? I feel it from your manner and his."

Mansonby patted her head fondly. "Why—my dear, I'm sorry, but—yes, there is always more or less danger in our business, but I wouldn't——"

The young girl gave a grim, resolute little nod and went to Cyrus Marlin. "Be careful, Cyrus, my dear—for my sake." she pleaded. "I c-couldn't stand it to have——" Her tender lips quivered and her voice broke into a pitiful little sob.

It was too much. For once the bashful Marlin forgot to blush; for once he became masterful with a woman. Gently, reverently, he swung the little Jovian girl up into his powerful arms and kissed the sweet, quivering lips and the big, tear-flooded brown eyes, while her arms strained about his neck.

"Don't be afraid, little one," he assured her tenderly. "Nothing to be worried about. I *will* be careful, though. Now I must hurry. You stay right with the Chief, and he'll take care of you." Another hurried caress and Cyrus Marlin had stepped into the Mansonby car, circled sharply and shot away into the west and out of sight.

Little did any one of the group suspect what lay right across the path of the brave, devoted Mansonby man. Nor would it have meant an instant's hesitation or wavering with Marlin had he known that he was to meet—that which he *was* to meet.

The people of Earth could not grasp the enormity of the ghastly menace that was upon them—which was not greatly to be marveled at.

The general emergency order sent out by the chief of police, and later broadcast to all Earth Detective Stations by Mansonby, created a veritable furor from the beginning. The tendency was to ignore it, and the forces available were far from sufficient to patrol the entire city and state and check the movements of all of the hundreds of thousands of aircraft that swarmed everywhere like bees. The more prudent and instinctively law-abiding at once assumed there was justification for the order or it would not have been given. These complied, if not unquestionably, at least with a fair degree of consistency. The second class who gave heed comprised those always timid ones who not only fear to disobey any constituted authority but are afraid of even the shadow of danger. These, too, stayed out of the air. But far the greatest number either openly scoffed and ignored the order or put off compliance until the business in hand could be dispatched. Even if there was danger, business must go on. Money matters must not be jeopardized.

SOME of the press, probably with the best of intentions, made the work more difficult. Eventually it cost many lives. To this class belonged such sheets as *The Daily Clarion, The Bugles, The Common People,* and others of that ilk. *The Clarion* carried a heavy black scarehead across the front page of its morning edition: "OUR INDOMITABLE POLICE," followed by the only less glaring sub-heading, *"The Clarion* Scores Again." In just what manner *The Clarion* had scored was left a shade to the imagination. In part the story ran:

"As freely predicted by *The Clarion* at the time, the election of 'General' Ulysses Abraham Cohen as Chief of Police two years ago is turning out a ludicrous blunder. Yesterday this remarkable man, without the slightest justification so far as we are aware, issued his

imperial ukase, all wafered and sealed and done up in impressive baby ribbon, to the effect that henceforth all aircraft are to keep away from the air, under dire penalties. Somebody told him, it seems, that he had seen *an animal up in the air* over the city. Yes, dear reader, you heard correctly—an animal up in the air. Had it been the police who were alleged to be up in the air, one could perhaps understand and even applaud Cohen's auto-psycho-analysis. At any rate, he admits the police are very much afraid of this animal and think it quite possible other sky animals may show up, causing them still greater fear. Meantime Cohen is petulant and ill-natured because the people will not share his panic.

"For the first time in our memory, words entirely fail us. We seem to recall reading in our nursery days about a frolicsome beast that jumped over the moon, and it is of course just possible this is what is causing our worthy Chief of Police to tremble and his teeth to chatter so audibly. If so, we suggest that the milk maid call her bossy down, slap her ears, and guard her more carefully in future. There is no predicting what dire disaster this humorous bovine might inflict—on the minds of General Cohen and his intrepid men. We entreat our readers to be kind to the police and refrain from startling them by any sudden or unaccustomed sounds or movements."

There was more of the same sort, with bristling subtitles at strategic places. The people laughed over their breakfast coffee, toast and eggs, and proceeded to fly to their business as usual. The police were a lot of boys—quite comical. It might be well for the Commissioners to put the juvenile traffic squad in charge of the situation until the police recovered from their scare.

The afternoon edition of this same *Clarion* ran a black head, "COWS COMING HOME," and a smaller one, "Cohen Thinks Whole Herd Taken to Air." And a still smaller one, "Great Excitement Among Police. Citizens Warned Against Cow Bites."

The *Defendant* and the *Common People* vied with the bigger *Clarion* in a perfect riot of ridicule against the hard-working peace officers. The former included "the aristocratic and undoubtedly powerful Mansonby" in the general arraignment, and the latter shed inky tears that even the Department of National Defense had allowed itself to be so far stampeded by the police as to endorse Cohen's hysterical order and lend a considerable fleet of aircraft to its enforcement.

Of the more conservative press, one jocularly remarked that it appeared to be "a political play and might be fairly charged to the party beaten at the last election." Another humorously asserted its conviction that the whole alarm was a publicity stunt "arranged by the Farmer Party with a view to recommending itself for the relief it has so long sought in vain." Others reminded the people soberly that whatever the "yellow press" might say the sensible element would hesitate about disobeying an order which was endorsed by "the able Cohen and Mansonby, to say nothing of the Department of National Defense."

The Clarion's reply was an immediate extra, proclaiming that the editor of that paper would, on the morrow at noon, enter his aerocar in Times Square and proceed to chase the offending sky animal to some place where it would not frighten the police. Enormous numbers of the edition were scattered broadcast, free to whoever would take them, and placards were posted in large letters at the most public places in the city, "Remember, People, at Noon Tomorrow! Be there! See the Great Show! If the sky-animal is not too fleet for our aerocar, the editor will endeavor to present the police with a steak cut from the sky-cow."

The announcement made a tremendous hit, and the subsequent extras of *The Clarion* that day sold faster than the presses could produce them.

But alas for the editor of *The Clarion*, at the hour set with so great éclat for his heroic feat, the morning sun saw a dozen of the beasts hovering almost directly over Times Square, and the hour of eleven saw the number doubled. It would almost appear as if the creatures had read the posters and gathered themselves to see what would happen.

The noon edition of *The Clarion*, industriously distributed everywhere, announced with extreme regret that the editor had gone to the hospital to be operated on for a sudden acute attack of appendicitis, but promised in loud tones that as soon as he should recover the flight would positively be made as announced.

The next edition was laughed off the streets.

IN Mansonby's office and among his coterie of immediate friends there was great anxiety over Marlin in the weeks that followed. The matter on which he was engaged had necessitated that he go to more distant points than had been expected. On the second day after his hurried leave-taking he had communicated with Mansonby from St. Louis. He was leaving for farther-west points. On the third day a garbled message had been received from him, which was broken off in the middle either by faulty transmission conditions (it was evidently being sent by Marlin with a pocket transmitter) or by some circumstances which remained purely a matter of conjecture. Since that time nothing had been heard from him, and constant inquiry at all points, where it was thought he might have been seen, failed to elicit any information concerning him. He had not arrived at San Francisco or Los Angeles, at both of which points he had expected to call.

To make matters worse, the psychic Mary Terra awoke one morning from a restless and miserable night with the clear impression of a message seared into her brain. She declared that her lover was in desperate danger and himself almost in despair as to the outcome. For several succeeding nights she would start out of her sleep with the same nightmarish obsession. She was unable to shake off her depression and apprehension and became almost ill as a result. It seemed to take all of her strong will to keep up. She would have taken an aerocar and gone at once in search of Marlin, but Mansonby assured her he had already taken every possible measure to find him, taking airships away from other work to comb every mile of the western country, equipped with all known weapons of search, including the telepath. And seeing the stark misery in Mansonby's eyes, there was no doubting that all would be done that could be done.

And so it was with heavily burdened hearts that the little inner circle of the Mansonby Interplanetary carried on during the succeeding weeks, as the searchers reported continued failure. Mary Terra's messages had ceased abruptly, and she declared he was either dead or safe. As the weeks accumulated into months, it began to look as if they were never to see him again.

The appearance of the enemy scout had been quickly followed by others. At first there were only a few scouts, merely cruising here and there, in groups of two or three, over the different centers of population. They were cloudily semi-transparent by day, luminous with a pallid, ghastly phosphorescence by night. They had the appearance of merely scouting about pending the arrival of a greater force.

The combined forces of the police and defense departments, supplemented by every resource of the mighty, far-flung Mansonby Interplanetary, did not suffice to keep the people obedient to the sweeping orders that General Cohen had sent out after his tele-

phone conversation with Mansonby at the Ello-ta home. The human being will never believe others. He must see for himself—an admirable trait, albeit often disastrous. Living themselves on a mere grain of cosmic sand, knowing almost nothing of what goes on in the great universe, they yet assume and insist that such and such things *cannot be.*

The fields and range were decimated of livestock.

It was impossible to put the whole country into jail for disobedience. A tithe of the offenders, taken here and there to show that the police meant business, already crowded to overflowing all available places of detention. These were imprisoned for a day, or a day and a night at the most, given a "good talking to," and upon promising future obedience, turned loose with a warning.

Many probably knew nothing about the orders. Incredible as it may seem, there were still many who had not been willing to spend the few paltry pennies that would have put radio appliances into their homes, or even the still smaller sum to supply themselves with old-style telephones. There was no way to reach and warn such, as all mail deliveries had been suspended.

Many laughed at "the whole ridiculous business." In general, the more they were warned, the less they heeded. The like had never been heard of—was outside their experience or belief. Such fantastic creatures as the police were trying to frighten them with were simply absurd. There could not be intelligent living beings of any such sort. The prevalent verdict was that there was no such animal. They would assuredly have known it before if there had been. Did the police think they were children to run into the house and hide in a closet, just because something or other had blundered accidentally into their atmosphere?

So they laughed and went about the business of making a little more money. An aerocar would be flying along; an automobile on the highway; men at work in the fields; women and children on picnics; groups of people here and there—then a swift, soundless swoop from above, the suffocating embrace of the creatures of their unbelief, and that was the end for the men, women and children. The people were literally "gobbled up" by the thousands as the number of the enemy increased during the succeeding weeks.

The larger ships were not molested at first, the intelligent creatures evidently either realizing that the big craft were too much for them, or else awaiting the time when easier prey should be lacking.

Over the United States the sinister dragons of the ether, in ever-multiplying numbers, hovered and dived, wheeled and dived again and again, ghostly, foul, nauseous; and each time, human beings or animals passed into the ravening maws.

Slowly, stubbornly, realization came to the populace, as the detestable hordes overspread the Earth, and a mad panic set in, which reached its remotest corners. All races, colors, and conditions alike—such as were left of them—began to mill about in frantic terror. If it had at first been difficult to coax or browbeat them to do anything in the way of taking precautions, it was now impossible to get them to do anything but skulk in their homes, or whatever places seemed to offer them the most security from the primordial menace.

The police, armies, and navies of the whole Earth riddled the mysterious creatures with millions of bullets and shells from the guns of the airships—in vain, as Sanderson had predicted. Some were shattered in vital parts, and brought down, but for the greater part they remained unharmed. A hundred bullets flung into one of them had little more effect than sticking pins into jelly. Such specimens as were secured the scientists experimented with, dissected, analyzed, tested, and talked about, and reduced their findings to copious nothings; but nothing was established that had not already been known or suspected. The learned doctors of science could offer no means for their destruction. The rare, unchemical tissues of which they were made would yield to none of the known treatments. All they knew was that electricity reduced them to delicate ashes.

Again and again vast fleets of airships rained down into their midst torrents of high explosives. Most of these the elementals dodged, but when they did not, the only result produced was what Sanderson had also foretold—they were brushed aside, only to return on the back-wash of air into the vacuum. The atmosphere was tortured with seething clouds of poisonous, corrosive, and fiery gases. A dozen assorted kinds of deadly rays were played upon the masses. Some of these were effective, but after a few lessons the creatures nullified these temporary successes by flying too high and shifting their attacks to the night time or to places where they seemed to sense that defense was lacking. In other words, they simply dodged the attacks, and their lightning speed enabled them to do this effectively.

WHILE the people had roamed about more or less freely, the invaders were content to take their toll wherever and whenever they could get them. There were enough thousands to be picked up for their needs, it seemed. But as the people became stricken with panic, and remained more and more indoors or under protection, they could not come at them. Necessary traveling was done by railway, or by air or water ships of a size that the creatures could not destroy.

The number of the attackers was augmenting constantly. Where there had been scores or hundreds, there were now dense masses, and over the centers of population they hung in clouds. This meant that their demand for food increased enormously. They could not enter the houses to take their prey. They must bring their prey to them; and in how monstrous and unthinkable a manner they did this will be seen.

Mansonby had not failed to learn the true lesson from the destruction of the first elemental by lightning in France. He had argued from the beginning that electricity was the only thing that would destroy the sinister visitants. Such great concerns as the Tellurian Electric Company, the Westinghouse, the Edison Universal, the German Interplanetary, and a host of others of all nations had early come forward and placed their entire resources at his disposal. Preparations had been made to project against the enemy bolts of artificial lightning of many million volts. But after several months of arduous preparation and the expenditure of enormous sums, this method was quickly shown to be nearly useless—certainly nothing like adequate to give any permanent relief. Here and there numbers of the creatures were brought down and became ashes that blew away on the first breeze. But the lightning bolts were available only in clear weather. When clouds were in the sky, attackers stayed above them, and the lightning reached only to the clouds and no farther. Many times the clouds, becoming surcharged, shot back real lightning along the line of the artificial, with fatal consequences to the senders.

And, too, the elementals learned quickly. During clear weather they kept out of range and attacked only in the darkness, which their sense of sight—whatever that was—seemed to penetrate as well as the light. In cloudy weather they massed above the clouds, and swooped swiftly when they saw anything to devour. The fields and ranges were speedily decimated of livestock, until it seemed as if domestic animals were to become extinct from the Earth. In the outland regions, where the people depended largely on animals for food, starvation began to draw nearer and nearer. In the Arctic the bears, reindeer, seals, and like creatures, were soon unobtainable, even had the terrified people dared to go out to find them. Usually they preferred to starve rather than face the prospect of themselves becoming food.

In such densely populated centers as India and China, the daily victims were numbered by the hundreds of thousands. There was no protection for these; no shelter to which they could retire and be safe. Fishermen were swept off the seas. Something must be done, or the world would die of starvation.

The forces of the Earth were divided into offensive and defensive, the former devoting their attention to trying to drive away or destroy the hordes, the latter to devising all possible ways of keeping their victims from them. Many defensive expedients were tried—in the cities first. Chief of these consisted of stringing copper wires over the streets, a few feet apart, and charging them heavily with electric potential. This had some success, and was extended to some of the agricultural lands. But there was neither enough wire to protect large areas, nor enough power in the demoralized condition of things to charge them. And there was the difficulty that every time the enemy swept down upon them, the wires were dragged to the ground and rendered useless until extensive repairs could be made; and the elementals, as if realizing the difficulty, hovered over the very sections where necessary work was in progress. Then steel rails were elevated on supports a few feet above the ground, and the wires strung on them. This succeeded to such an extent that agriculture began to be carried on over larger and larger regions, and the people in the protected areas regained a measure of their former freedom. But it was impossible to fortify the whole world in that manner. In such countries as Africa and the outlying regions of South America, the population, both human and brutes, almost disappeared, becoming prey either to the elementals or to starvation.

It had become a struggle whether the Earth should continue to be the abode of the human race, or become the home of these weird phantoms of space.

In this manner a year passed. In that time it was estimated (although admittedly it was only a guess) that of the population of eight billions on Earth, a third had gone to feed the clamorous hunger of the demons of space.

To make matters worse, it began to be apparent that a gradual but sure deterioration in the mental and moral fiber of the people was setting in. At first it was not very marked, and none could say it was anything more than the natural outcome of the continual strain of anxiety and fear, accentuated by the lack of proper food. But instead of getting better it grew steadily worse, until it was impossible longer to doubt its true cause. Unaccountable things happened continually. The days were ridden with a strange madness, the nights peopled with profound and unnameable terrors. The reason of the Earth seemed tottering to its fall—the mind of man was turning to water. Was man—Great Man in the image of God—to go down into utter damnation and ruin? Was this noblest animal of all creation to be unable to extricate himself from the grip of the hovering terrors?

HOW many times during the ages, usually in idle speculation or jest, had the question been variously asked: Suppose some sinister things of which we have no conception, all unsuspected, were watching us, awaiting their moment to descend and sweep us from our precarious perch on the Earth? May not some Terror be hovering near us even now, watching us as we sleep at night, as we arise to the day, as we go about our work or our play? How can we know that some hideous aerial monster is not waiting for the time which it shall deem ripe, to swarm over puny man and destroy him utterly?

The Thing, the Terror, the Monster, had come to

make answer, and Mighty Man had yet found no way of beating it back.

When it was noised about that the cities had devised ways of protecting themselves, the country took its hands from the plow, threw down its hoes and shovels, and flocked to the cities as fast as they could find airships to take them, or the intervening highways were placed under the electric protection. But wherever people are, they must find means of stoking their thirty billion minute electric cells, lest a positive acidity being established, the electric potential called "life" be destroyed. And food was already insufficient for all. True that the airships could still go where they would without any great peril; the railroad trains could do the same; the ships could still sail the seas. But wherefore? Where should they take their passengers? The great quest was for food, and there was the same dearth of it wherever they could go. They could fish from the big ships, and did, but the fishing grounds soon were depleted.

The Interplanetary fleets carried such as cared to go to other planets, only to find that they would have been as well or better off at home. By this time every inhabited planet in the Solar System (and every uninhabited one, too, so far as anyone could say) was blanketed with the unhallowed scourge. Interplanetary travelers reported the elementals swarming everywhere throughout space. It seemed as if the whole cavernous hells of the limitless void were vomiting their grisly contents entire upon the race of humans to harry them out of being. It seemed as if the painfully erected civilization of the centuries, with all of its complicated modern life, was to be a dead and gone thing of the past. Where did this abysmal swarm of ghouls come from? One could not say. What had caused it suddenly to break away from its far home and descend like an unholy avalanche upon humanity? One did not know. Had they spawned and grown in the fiery regions of the outer planets of our own system—Saturn, Uranus, Neptune, or that other yet unnamed planet outside the orbit of Neptune? Or did they come from some mysterious and unknown distant region of space? Nobody knew—likely both. The one thing that was becoming apparent to all alike was that unless some effective means was found to eliminate them, and quickly, the human race was to vanish, and the millions of years of evolution would be flung away and have to be done all over again.

In Mansonby's offices there was definite mourning. Marlin had not returned and had long been given up for dead. Although desolated over their loss—for Marlin, like his chief, had been universally loved—Mansonby and his people must carry on as best they could. Mary Terra bore up heroically, and with Adrienne, Signa, and Therma and other women carefully sought out and chosen for certain mental potentialities, labored unceasingly night and day with Ello-ta and Sanderson, at some abstruse experiments which never seemed to come either to flower or fruition.

Upon Jupiter there had at first been some success under the leadership of Maltapa Tal-na and Rala, the Jovian War Chief. For several months the Jovians suffered little. But this turned out to be rather from circumstances than any real ability to cope with the enemy. The elementals had occupied themselves at first with the Vulnos—the Drugos and the Guvolus—of the Hot Lands, leaving the civilized population of the north and south polar regions largely in peace. But after the prey to be had for the taking in the Hot Lands had been exhausted, the elementals widened the scope of their hunting into the polar regions. Just as the Jovians needed his help the most sorely, Maltapa Tal-na was hurriedly recalled home. Mars, for some unknown reason the last planet to be visited, was not suffering with the rest. In fact, Mars and Earth were the most vulnerable from their drier climate and less luxuriant vegetation. On Jupiter, Venus, and Mercury the forests foiled the elementals; they could not solve them. Moreover, the people were to a great extent vegetarians, and edible vegetation was everywhere so abundant that there was little danger of hunger, and when the people had learned to keep where the elementals could not come at them, they did very well.

Mansonby was in constant touch with all of the planets of the Solar System, exchanging views and experiences, so that every method that promised any success in one world was tried in the others. As never before, the whole Solar System was welded together as one, with a common danger and a common purpose to escape it if they might.

In this manner the second year passed. There had been temporary successes against the elementals in various places and by various methods. At times there had seemed hope, but each time the successes were countered by some new move of the spectral visitants with a cleverness and resourcefulness that were remarkable.

Meantime, though there had been no return of the violent and overwhelming experiences of Mary Terra, Adrienne, and Therma Lawrence, the mental fiber of the people was steadily becoming more flaccid and inert. Mansonby and all of his immediate party had felt sure at the time that the mental symptoms of the women were caused in some manner by the elementals; but with the continued immunity from that phase of attack, this had begun to be doubted, and had been practically dismissed from most minds before this later epidemic of decadence set in. Mansonby almost alone had reserved his judgment and filed the matter away in his encyclopedic mind for future reference. Now, although he stated his conclusions openly, the people would not believe.

Nor will it be supposed that the Mansonby forces were immune from the general decimation during the terrible two years. Wherever there was danger, there the devoted men of the Mansonby Interplanetary were found in the van of the transaction. Composed of individuals of every civilized nation of the Earth, as well as representatives from every planet, they laid down their lives freely when duty demanded, with no regard for any lines of color, nationality, or condition. Mansonby had a way with his men that made them face danger and death cheerfully for him, as they knew he had always done for them.

ONE of the most heroic acts of the entire siege was performed by a Japanese member of Mansonby's organization. A special railway train, containing fifty Mansonby men, had been wrecked in the middle of the Great American Desert. Thirteen had been killed, and the survivors were cooped up in the train, escape from which was cut off by a large number of elementals hovering persistently near. They seemed to know there had been a disaster, and like scavenger birds were awaiting the moment when their prey would fall into their maws. There was food for only a few days. The wreck lay many miles from assistance. Of all the multitudes of airships of sufficient size, not one was available at the moment to go to the rescue. As if in league with the enemy, a heavy storm had come up, washing out the railroad tracks on both sides of the beleaguered party. To escape from the wreck would have meant walking many miles. The only means of rescue available were small aerocars.

Yamamoto, a Japanese attached to Mansonby's New York office, but then in San Francisco, volunteered to

lead a party in an attempt to effect a rescue. In the press of a thousand other duties, Mansonby was compelled to leave the matter to his representative in San Francisco, who, himself beset by other demands, was glad to yield to the request of Yamamoto to be allowed to make up his own party. With a party of twenty-five Japanese and Chinese, Yamamoto set out at night with twenty-five aerocars.

They reached the wreck in a few hours without interference, took the survivors of the wreck into their cars, and were about to leave the scene when a swarm of elementals swept overhead and awaited developments. It was a situation of sufficient desperation. The only thing the relief expedition had accomplished, apparently, was to add to the number of the marooned party, and hence to the difficulty of the situation. But the brave Japanese remained smilingly unperturbed. In a detached and casual manner he lighted a cigarette and puffed a moment with a thoughtful relish.

"Mr. Watson," he said at length to the leader of the whites, "I make you a sporting proposition. I have twenty-five men with me; you have thirty-seven with you. There is enough car room for all. I will load my men into one squadron; you load yours into another. I will take off a few minutes in advance of you. Possibly the elementals will follow us; possibly they will not; I do not know what they will do. If they follow us, I think we can keep them engaged for a few minutes before"—the Japanese paused with a grin on his swarthy face—"well, before anything much happens. We ought to be able to give you five minutes—possibly ten or fifteen minutes' start. You will fly in the opposite direction, and with luck—well, with enough luck, you have a chance. What do you say, Mr. Watson? If they follow us, you can escape; if they do not follow us, we can escape. It is fair, is it not?"

Watson wrung the hand of the brave Nipponese. "Yamamoto, you're the bravest man I ever saw. But I shall not permit you to make any such sacrifice. I make the counter proposition that some of your men and some of mine ride in each aerocar; that we take off at the same time in as many different directions as there are aerocars. Some of us may win through, in which event some of us will be saved and some of you."

The Japanese shook his head vigorously. "You do not understand my plan, Mr. Watson. I have the advantage of having fewer men, and I have a plan, and you must please let me work it out. But I think you have added a good idea. My squadron will spread out in a fanlike formation, each car taking a different direction, but all generally eastward. This will give us a better chance to—to do what I have in mind. It is dark yet. That may be in our favor; maybe not so much. At any rate, it *seems* safer. You must not wait too long but long enough. It will depend. You will have to decide that. But when you do start, have each plane take a different route, but all toward the Pacific. That way some of you may get away, maybe all. Ready, Mr. Watson! Fly low and—good luck. My greetings to the Chief."

The two men clasped hands again; Yamamoto sang out an order to his men, who quickly sprang to their places, and at his signal flashed away to the east, spreading apart as they went. With a wave and a smile the Japanese Mansonby-man followed.

At first the elementals did not appear to notice their departure. Their vaguely luminous shapes continued to ride like slow ghosts overhead—silent, gruesome, horrible. Perhaps they were asleep—if such creatures sleep. Suddenly one of them darted off in pursuit and the others shot after with a speed that boded no good for the Japanese and Chinese, who were crowding on every ounce of power their machines were capable of.

Watson waited until pursued and pursuers had passed over a low range of hills a few miles away, when he ordered his men into the air. Every man of them got away, but not a single one of the Orientals was ever seen or heard of again. They had gone cheerfully to the most horrible death imaginable. But that was the way with the Mansonby-men.

Long afterward, when next he saw the Chief, Watson did not fail to repeat to him the last words of the devoted Yamamoto, "My greetings to the Chief"; nor fail to hand him a note the Japanese had slipped into his pocket, which said: "Dear Watson: You are thirty-seven Mansonby-men; I am only one and the rest of my crowd are just pick-ups who could handle a car. Surely the Chief can do more with your thirty-seven than with me."

Other examples of sublime heroism were not wanting. All national lines were obliterated, and the world became one against the horde that seemed to promise the extinction of man.

MEANTIME Ello-ta was working night and day with Professor Sanderson and their assistants on his telepath. Many who knew of his efforts scoffed. It was absurd! Ridiculous! The *mind* sent out no waves, or vibrations, or current of any kind. Why, the mind was not a *material substance!* A thought was not a *thing!* The mind worked inside the head—the brain. Ello-ta's ideas about reading people's minds were merely funny. Ha, ha! They were merely—well, what was the use of talking about such nonsense?

Others, while wishing to be fair, yet found the thing too far beyond them and doubted. It might possibly be true, though unlikely. Very unlikely indeed. On the face of it, Ello-ta had given some remarkable demonstrations—though perhaps hardly demonstrations. "Mind reading" had been claimed for centuries and usually been exposed in the end as mere trickery—skullduggery. If Ello-ta's results were not that, and to be fair he did not appear a trickster, well, there were exceptional minds. Probably his was one of them. That might account for it. Ello-ta *was* a rather remarkable person, to be sure.

Few seriously believed much, if anything, would be accomplished. Suppose he *could* read people's minds? He could hardly expect to read the minds of the elementals, if they had any. And even if it were admitted that he could read their minds (if they had minds, which was unlikely), and even if he could communicate with them, which of course was impossible, what good could it possibly do? Did he expect to coax or argue or wheedle them into going away?

And so it went. Ello-ta neither knew nor cared about the people's opinions. Mansonby knew; Sanderson knew. They knew what he had been doing and what he was now attempting. Mansonby had been here and there about the Solar System, poking into odd out-of-the-way places and seeing unbelievable things, until he was willing to admit the possibility of almost anything.

All these doubtings and scoffings were directly in the face of the fact (as will be remembered by those who have read "The Cry from the Ether") that Ello-ta had rendered valuable aid at the most critical stage of the adventure through the medium of his telepathy. His ability to pick up and interpret, to some extent, even though imperfectly, the thought currents from the minds of the Cereans, had shown the way to their hiding place and resulted in their rescue by a hair's breadth from the savage Drugos of the Hot Lands. But that accomplishment had been too far away for the people of Earth to credit. Probably coincidence. People must have things under their noses to believe.

Since the appearance of the elementals on Earth, the eminent scientist, Sanderson, had added the entire weight of his great learning and resources to Ello-ta's efforts.

Their immediate quest was a means of magnifying and intensifying what might be called the electromotive power of the infinitely delicate waves that emanate from the human brain as thought to the point where they would become a dynamic, driving *force*. Mansonby's two chief reliances had been electricity and the telepath. The former had been rendered nugatory by its own limitations and the cleverness of the enemy. Now it seemed as if the sole remaining hope of escape from the encompassing doom lay in this delicate creation of science.

Ello-ta's reasoning, in which Mansonby and Sanderson had concurred, had been in this wise: A sound inaudible to the unaided ear could, by proper appliances, be magnified or amplified into a thunderous roar; a light of low candle power could by reflection and re-reflection be intensified into a blinding glare; the force of gravity could be increased or diminished at will; and an electric potential could be stepped up or down as desired by the use of transformers. Why, then, should not thought waves, close kindred to those of sound, light, gravity, and electro-magnetism, be capable of the same amplification? He believed they were susceptible to it, if he could only find the secret.

After discouraging failures he had noticed one day in experimenting with some delicate mechanism more delicate than even the thermo-couple (or Langley's bolometer, which measures the heat received from stars trillions of miles away) that a sustained mental impulse directed through the telepath he had already perfected affected the mechanism. By repeated tests he found he could produce this effect at will, and felt he was at last getting near to what he was after. Calling in Adrienne and Mary Terra, who held themselves constantly at his orders, he found that they could produce the phenomena more efficiently than he. This was better than anything he had accomplished before. It was a direct and immediate controlling of matter by mental force alone.

Why not, he asked himself? There never had been any doubt about the control of matter *in some manner* by mind. There never had been any disputing the fact that there was some point of contact between mind and matter, where mind took hold of matter and swung it this way, that way, or the other, at will. Every time a word was spoken, mind controlled matter; every time a motion was made, mind controlled matter. The mind *willed* speech or movement, gave the command, and matter obeyed. The fact that mind had some control of matter never had been open to doubt.

But the way mind did this had been a "mystery," and it had at last come to be supposed it always would remain a mystery. Doubtless it might have, if certain master minds had not gradually paved the approach by unifying the various natural forces into a single homogeneous whole; showing they were but parts of attributes or phases of one and the same thing. First "time" had been definitely removed from the misnomer "fourth dimension" and reconciled and unified with the known physical laws of the three dimensions. Then "space" had been joined with time and added to the harmony. Then electro-magnetism had been included, and afterward gravity had been shown to be a sort of twin sister to electro-magnetism. These great minds had shown the way to such a correlative understanding of the forces of Nature as linked them all into one cohesive and coherent whole. Old laws were upset and had to be discarded for new ones. "Energy" had been proven to be "material"—to possess weight and to obey the same laws as other matter. Matter was transmuted into energy and energy back into matter. In short, everything was being reduced to a single electrical unity.

Then WHY, asked Ello-ta, should "mind" itself, electrical like the others, be the only thing to stand outside the fold? Why should not mental force be brought into relation? Why should it not be possible to place the finger of science upon the precise spot and manner of the interaction of mind and matter and then to scrutinize that spot and find out what took place there? If two dead rocks could affect each other and draw together through gravity, why should not two living minds be able to do as much?

This Ello-ta believed he was on the way to accomplish.

All of which appeared at a great distance from the subject in hand—the destruction or repulse of the elementals. It resulted in a verdict from a considerable jury, including Ventrosino, at the Major Observatory, that Ello-ta was an ass.

Meanwhile, as time went on, the victims of the elementals became fewer and fewer. It appeared as if they had exhausted the ready supply. Through the efforts of Mansonby, aided by the police, and the Department of National Defense, much had been accomplished in the way of protecting the people and permitting them to go about their business (even if on a half-filled stomach) of rehabilitating the world's food supply. Great Man was not quite helpless. He was not minded to go down without a fight. Great Man could will things, and they were brought into solid being. Besides, Great Man did not wish to die.

IN the cities the people had become comparatively safe from the gruesome hordes that hovered always above them. There, business began to go on much as usual and might have done so indefinitely but for the vital necessity of more food, which is not much produced in cities. It is true that by the time matters had simmered down, less food was needed to feed the world, because the population had been reduced by such an appalling fraction. Less food was required, certainly. But even so, there was not enough. The whole world was on short rations, which were becoming shorter. Agriculture had been extended, gradually, laboriously, under the electric protection, with many reverses and disasters, and there were crops again. But not enough by the half and more. Arrangements were under way to obtain vegetable food from Venus, where it was plentiful, but it had not yet begun to come through. As for meat it had passed out of the diet of the people (many thought better so). What food animals had escaped the general destruction were being saved for breeding against the time when protection could be afforded them in numbers again. Severe laws were passed against the killing of any food animal. Most of the others remaining alive had been killed to save them suffering, since there was no food for them. Eventually the spectral enemy might have been starved out and gone away. This had come to be the main hope of many.

But the elementals did not go away. They had not yet extended themselves, it seemed; not yet exhausted their resources, as was soon to be manifest. These wilful, elusive humans must be taught other lessons yet. They must be taught *to come to them! Ridiculous!* Great Man would have said. But was it? These were *elemental creatures*. They were not physical as men are physical. They were less physical; had more of the primordial mental stuff.

At this stage of affairs strange things began to be

noticed—strange and unaccountable mental abnormalities and maladies. People were taken by mysterious possessions, ghostly obsessions, weird feelings of spectral presences. Violence increased, running often to insanity, fanaticism, and general irresponsibility. The hand of Cain was raised in the Earth. Riots broke out without apparent cause, and there was a mounting tide of robberies, murders, rapine, and other crimes. The jails and asylums were filled to capacity, and there was no place for the overflow, which must be left to run riot, destroying and being destroyed.

It was noticeable that these crimes were not limited, even chiefly, to the ordinarily criminal classes. Ministers in their pulpits—men of blameless lives—abruptly swung from the exposition of the gospel to grotesque and indelicate rantings. Grave, staid professors suddenly forgot their subjects to run amuck among the members of their classes, gibbering wild inanities, mouthing meaningless drivel, assaulting their pupils. And the pupils joined the frenzied mêlée. Those of intellectual attainments fell the more readily under the strange spells; those of sluggish mentality and younger children were usually immune.

Bedlam broke loose, and confusion became worse confounded. Hard-headed business men rushed forth from their offices and counting houses; laborers abandoned their work; policemen left their beats. There was a tendency to run madly about, without any regard to protection or safety. And again, here and there and everywhere, there would be the silent swoop from above and—the insatiable maws were filled again.

The sane ones were compelled to forsake every useful task and help restrain and care for the mad ones. Business was neglected; traffic jammed the ways in inextricable confusion; agriculture, which had begun to look up, dwindled again. All schools, churches, and other public institutions had to be closed.

The elementals had re-established their ascendency, and the population began to decrease. Swarms of the hideous attackers edged down closer and closer, bolder and bolder, darting swiftly here and there like obscene ghosts, to seize any exposed ones and rise to do the like again and again. The atmosphere took on an unclean dankness, as of the tomb, as the creatures swirled in undulating waves, like the indomitable surges of some infernal sea, about to engulf the little island in space on which the Tellurians lived. It seemed as if they were impatiently determined to make an end to these humans and establish themselves as the lords of the worlds once for all.

Mansonby's forces suffered severely because of their general refusal to forsake their duties. The Mansonby-men were like that. They consented to be killed, but refused to be daunted. Owing to the vital importance of keeping his organization functioning, Mansonby had concentrated his immediate friends, assistants, and employees in the Interplanetary Building for greater compactness and safety. They worked, ate, slept, and lived there, going out only when it could not be avoided, and then keeping under protection.

IT was as the second year of the invasion was just drawing to a close that the disaster overtook the Martian Flier Ship "Therma," named in honor of his daughter by Octavus Lawrence, the Interplanetary financial wizard, who owned the line. She was on the way out from Venus to Earth, loaded to capacity with passengers, the reported number being 6,164, besides her crew of 397, and a heavy first cargo of foodstuffs. More than half of the passengers were Venerian scientists, operatives, and various skilled technicians, on the way to lend their assistance to Earth and Mars. Many of them were Mansonby men. (The roster of persons directly and indirectly in the employ of the Mansonby Interplanetary was said to number around 4,500,000). By this time Venus and Jupiter had brought the depredations of the invaders to a practical standstill by concentrating the population in their vast forests, where the enemy could not come, and where vegetable food was to be had in plenty by merely reaching out and plucking it from the luxuriant growths. They were now turning their attention to furnishing food and other assistance to Earth and Mars, and this was the first cargo of food from Venus, Jupiter ships being occupied in supplying Mars.

The "Therma" had reported from the time of leaving Venus that the elementals were circling above her in unusual numbers and finally in dense clouds. A message came through, then, that they were drawing in closer as if to attack her. No great alarm was felt, however, as the large ships had not been molested, and in any event it was felt there could be no danger. The "Therma" was 2,417 feet in length, nearly 600 feet in central diameter, and one of the most powerful ethership in existence.

The next message ran:

"The elementals are alighting on the ship. At first there were only a few, as if they were testing us out to see what we would do, but now they number many thousands, and the portholes are covered with them so that we have no means of telling what is happening outside. It is difficult to see how they can do us any harm. The passengers are calm and there is more curiosity than fear among them. They are going about the usual routine of occupations and amusements. In the main salons they are dancing, listening to concerts and radio news as usual. We are about 11,500,000 miles from Venus. Will reach Earth this evening or tomorrow."

There was an hour or two of silence and then the "Therma" operator came through again.

"Our navigators report that the "Therma" is showing a marked deviation from course, which they have not as yet been able to correct. This is causing considerable wonder, and, naturally, some concern. It has been kept from the passengers so far. It may be well to warn other ships."

Another silence.

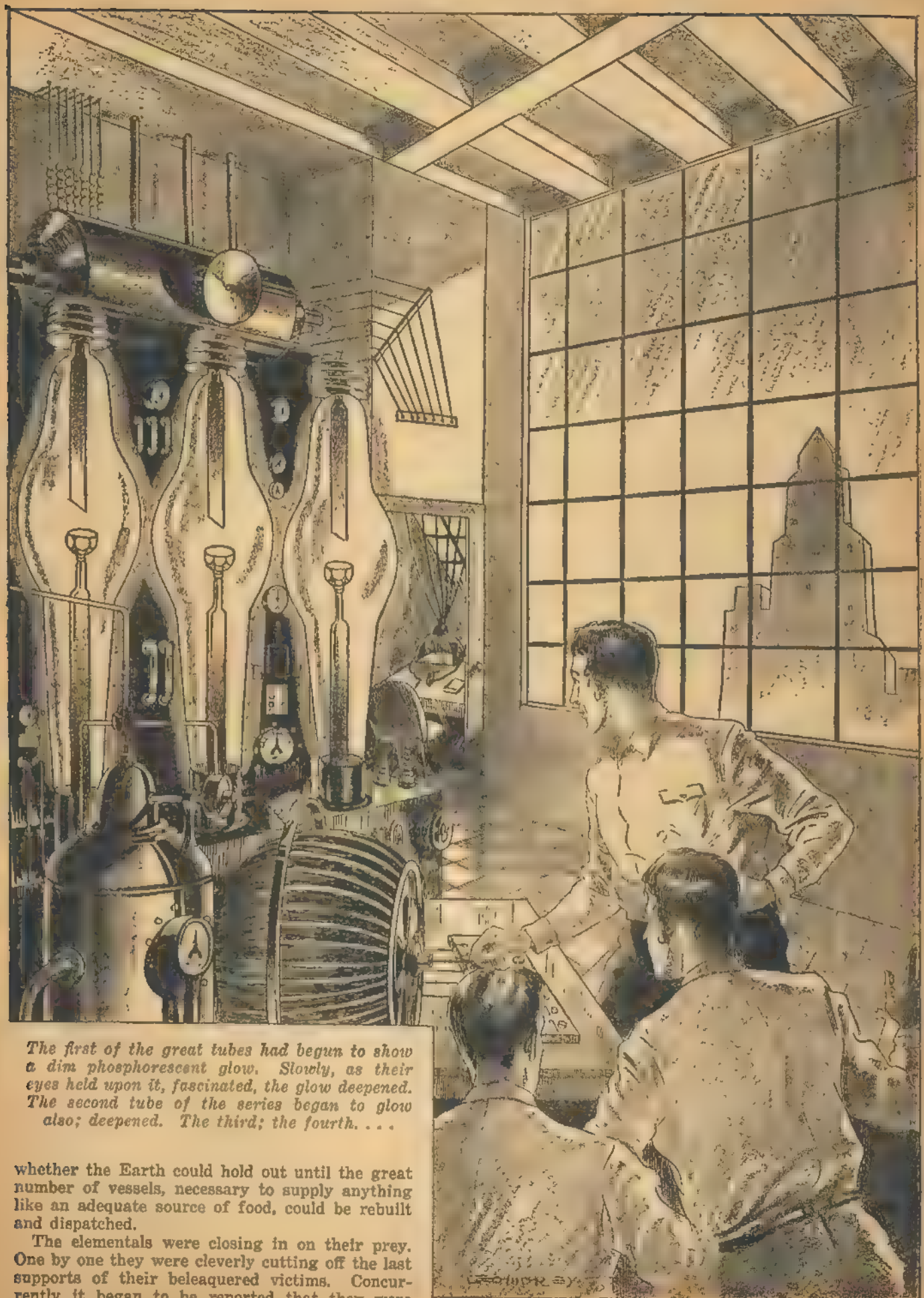
"The navigators report that present course would, if maintained, carry us directly toward The Outside, without approaching any planet. Someone has told someone else, and the passengers all know now. There is much alarm, but so far no panic. They are behaving wonderfully, particularly considering we are completely blanketed with these beastly creatures and going blindly and helplessly toward unknown space. Advise all ethergoing ships to make nearest ports at once."

The reports grew steadily fainter, and after many days ceased altogether. There was an apparent attempt to give their distance, but this could not be made out. The last words came in scattering and faint:

"—believe—lost—our—friends. Warn—"

It was the end of the gigantic "Therma" and her thousands of human souls.

In the succeeding weeks vessels in ever-increasing numbers failed to reach port. Some of them sent out their last brave, pitiful messages to the human race while on the way to meet an unknown doom; some merely dropped out of sight without a sound. Those ships that were fortunate enough to reach port remained there. It was the end of ether navigation. Steps must be taken, and of course were taken at once, to protect the ethergoing ships from the elementals. But this meant a long delay while new and more powerful generators were being installed and the ships remodeled for electric protection. The question was



The first of the great tubes had begun to show a dim phosphorescent glow. Slowly, as their eyes held upon it, fascinated, the glow deepened. The second tube of the series began to glow also; deepened. The third; the fourth. . . .

whether the Earth could hold out until the great number of vessels, necessary to supply anything like an adequate source of food, could be rebuilt and dispatched.

The elementals were closing in on their prey. One by one they were cleverly cutting off the last supports of their beleaguered victims. Concurrently it began to be reported that they were drawing gradually away from Venus and Jupiter,

and concentrating their attention on Earth and Mars, now entirely cut off from the other planets except for radio communication.

It was just about the end of the second year of the siege, and the height of the new mental bedlam and the disasters to interplanetary shipping, that Ello-ta, assisted by the brilliant Sanderson, and at all times under the immediate and active supervision and counsel of Mansonby, succeeded, after innumerable disheartening failures, in completing the construction of his first super-telepath.

AT the moment Mansonby, Ello-ta, and Sanderson were alone in the big room where the complicated machinery was installed. Painstakingly they were going over every smallest detail of the assembly once more. The crisis was at hand. And it was a crisis. Would this delicate, intricate thing of man's making do what it was to be commanded to do? Everything else had been tried—and everything else had failed. Would this last hope fail also? If it did fail, what was to become of the planets Mars and Earth and their people? It was a thing to whisper about. In spite of all the calm, scientific poise of these men, there was an intensity that would not be denied or put away. It is not easy to keep the blood cool and the heart calm when the next turn of the hand is going to spell salvation or unspeakable defeat—for oneself, yes, and above all for one's dear ones, and for one's own planet and perhaps all the other planets of a great solar system. For these men the world stood still. The doings of its countless centuries seemed focused and centered in that one room—standing still, waiting and watching what these men were doing. The world had done its utmost in its own defense and had failed. It now stood face to face—with the end.

Would this creature of theirs save them, or would it turn and rend them? Would this mental Juggernaut they had made crush them under its mental wheels? Would it set in motion forces so gigantic that once started they could not be halted again?

In the minds of these men at that tense moment must have been the image of a desolate Earth given over to utter calamity and desolation, its brave men, and its beautiful women, and all its sweet babes gone to return never more, and the good, kind old parent Earth, that had borne them so faithfully, strangled and dead beneath the foul, slimy embrace of the hideous serpent-octopi of an unknown hell.

A little nervously, as if putting off the last act, the three went over the assembly one more time. Every part seemed to be in place and adjustment. Well, the curtain must be raised. They must play out the last act of the drama to the end.

Mansonby nodded to Ello-ta, and the Cerean reached out and closed a switch—merely moved a little piece of metal a fraction of an inch, so that it would make contact with two other little pieces of metal and close a circuit which had stood open. It hardly seemed that this brief movement of the hand could be the one that was to deliver to the world its salvation or its destruction. At the same time that Ello-ta closed the switch, the other two men manipulated certain adjustments of a series of seven immense glass tubes. Eight feet high they stood, these tubes, small at the ends and expanding at the middle like a Coolidge tube.

Perhaps the gods of the machine assumed a bit more of nonchalance than they felt. Perhaps they failed to look into each other's eyes, pretending that there might be some small detail that required them to look elsewhere.

"Ah-h-h!" The single syllable escaped from one of them in a whisper that could hardly be heard. The first of the great tubes had begun to show a dim phosphorescent glow. Slowly, as their eyes held upon it, fascinated, the glow deepened—slowly—how slowly! "Ah-h-h." The second tube of the series began to glow also; deepened. The third; the fourth; at last the entire series of seven were quivering with an unearthly, weird, ghostly light, or—was it a shadow—a shadow of something that could not be?

The Cerean closed another switch, and a low humming set in that seemed to put every molecule of the air in the room into intense vibration. It deepened. Deeper still! Deeper! So profound it became that the air seemed to whisper eerily of presences, of—things that men cannot give a name to—a quality of electric tenseness and strain that was in some vague way disturbing—distressing. It seemed as if the hand of a giant ghost were grasping the brain and—twisting it—painfully. The eyes of the three men met an instant—and then their glances turned aside.

Pausing to see that all parts of the complex creation were functioning properly, the Cerean, with a gesture of finality, entered a small sound-proof and vibration-proof cabinet in the very center of the assembly. He moved resolutely now. Placing himself at an ordinary small telepath which fed into the assembly, he meticulously adjusted a helmet-like affair upon his head. Sanderson and Mansonby stood quietly to one side and waited, watching critically. The final crucial test was under way now. The fruit of their long labors was to be plucked for the worlds, or else—turn ashes on the winds of despair.

On the floor above, Martin, at his desk, writing, paused sharply in the middle of a word, and held his pen poised above the last character. He tried to go on, but in a moment laid the pen down and straightened in his chair. He pressed himself back tightly into it, gripped an arm with one hand, while the other brushed his brow. It seemed as if he were resisting—steeling himself against some overpowering impulse—or suggestion. Some seconds he sat thus, his face a medley of indecipherable emotions. Then his hands loosened and slid powerlessly from the arms of the chair; he leaned forward a little, his face drawn, as if with suffering. Slowly, as if in spite of his utmost effort, he arose, and went toward the door; opened it and went out into a hallway. Ellis was just ahead of him, and there were others about, too—a Hindu, a Japanese, a man from Mercury. Some were going toward the escalators that led to the floor below; some were headed for the stairways; others were at the elevators. When they reached the next floor a number of others were before them, going in the direction of the door of the room where the gods of the machine waited. Others were coming up from floors below the 249th—by the escalators, elevators, stairways. It seemed as if the entire human content of the building was doing the one thing it had the power to do—being suddenly drawn by some mysterious, irresistible mental magnet to one point—the door that led into that one room. It was as if they all were caught in the grip of an overpowering current that was dragging them, whether they would go or would not.

Nobody paid much attention to anybody else. In all their mental world there was room for but the one thought—to go to the room where the seven tubes glowed, and the air was charged to shattering tension; where the three men waited, the Cerean in the cabinet with the helmet-like affair on his head, thrusting every atom of his plant mentality into the little telepath in front of him that fed into the assembly.

As the room began to fill, Mansonby disconnected a switch, and Ello-ta emerged from the cabinet to look his company over with a languid half-smile—little as if

the greatest thing the world had ever dreamed had just been done.

"Thanks for coming," he said, "but—to what do we owe this pleasure?"

The company looked at each other and about, with a puzzled questioning air, and at first no one answered. Mansonby and Martin were standing beside Sanderson and Ello-ta, smiling in a knowing way. Adrienne, Mary Terra, Therma Lawrence, and Sigma Latourelle, with another young woman, entered softly on tiptoe from a side room and stood back of them—their faces a little white and showing the devastating strain.

At length a distinguished-looking young woman spoke. It was none other than the brilliant, rapier-minded scientist, Professor Melba Kasson—the same who had accompanied the expedition to Jupiter for the rescue of the Cereans from the clutches of the Drugos of the Hot Lands. She had joined Mansonby's forces shortly after the return. She looked from Sanderson to Ello-ta, and her eyes came to rest on Mansonby.

"You wished—you sent for me? Or did you?—no." One hand brushed her forehead. "I believe I—had an appointment. To tell the truth, I'm—a little confused. Why are all these others here? I can't tell for the life of me what I did come about; but I suddenly remembered I was to come here—at once." She broke off sharply, with a gesture of annoyed bewilderment. "Chief, I discharge myself. I'm slipping. When a person forgets——"

Mansonby smiled at her. "Sit down, Professor, and wait a minute. You're all right." He turned to Ello-ta. "All right, Zah, you may reverse your procession."

Again the complicated mechanism was placed in operation; the tubes glowed and deepened; the air became electrically strained and tense. Ello-ta returned to the cabinet, resumed the helmet-like affair and there was silence. Someone put a hand suddenly to his head, as if there were a hurt there; there was a sort of choking gasp from another. "Oh!" exclaimed a woman in a frightened little voice, her hand at her throat. Then, without further ado—without preface or apology, rather as if it were the one most urgent and necessary thing on Earth at that precise moment, one after another they began to hasten out. All had gone out except the inner circle of the knowing ones, and the door had closed.

The machine ceased and Ello-ta emerged from the cabinet and stood before them. "Well?"

Mansonby offered one hand to the Cerean and the other to Sanderson. "Perfect! My hearty congratulations." The silence that followed was almost an awed one. Professor Kasson was the first to break it. "I begin to see why I couldn't remember. I—why, it's a miracle. It's a plain miracle and nothing else."

"You withdraw your discharge, I hope, Professor Kasson?" smiled the Chief in the way that made the worlds love him.

"With pleasure, Chief. I thought I was—slipping, or——"

THE enormity of the thing had stunned everybody's nerves. There were staccato exclamations, with odd little silences between; peculiar sounds that suggested reconsidered beginnings of speech; a disinclination to do anything but stand and stare at the thing of steel, and glass, and fibers that Man had made and put brains into.

Mansonby was the first to pull himself together.

"You might explain a little, Zah, for the benefit of some of these. Is it a telepath?"

"Of course it is that; but it is more." The Cerean made a lazy gesture. "Much more. It is a telepath, because it assists in sending and receiving thought. But in that particular it is only a little more efficient, perhaps, than the small ones long in operation. As you know, the telepath is still an imperfect reader of thought; does not enable one to translate *all* thought. Neither does this. It is as dependent as ever upon mental pictures or images, the interpretation of which must be served with some ingenuity, but they are sent and received with so great force as to be practically irresistible. As you have seen, I used it to call you all here. I did that by merely sending you a picture of this room, coupled with its number in the building, and the picture was impressed with such force upon your brains that they supplied the impulse to come here—commanded your muscles to bring you here. You would have fought or killed to get here."

He paused as if to order his thoughts. "Thought-reading is not the purpose of this." He gestured toward the complex assembly, between which and the speaker's face all eyes wavered continually, and went on in a changed tone. "I neither hope, nor should I care, to read the minds of the elementals. I doubt if it is possible, although they have shown they possess mentality—very powerful mentality. Doubtless their mental processes would be starkly unintelligible to us."

"Then I'm puzzled as to its exact purpose, Mr. Ello-ta," said the young woman scientist.

"I'll try to explain. You know that the old telepath, in addition to mental pictures, reproduced moods. If the thinker who is being received is in a mood of despair, fear, happiness, one of those moods are impressed upon the receiving person—or mind. That you all know."

There were some nods and the Cerean went on.

"This mechanism is meant primarily to deal with those moods—to impress fear—and other moods, but chiefly fear, for our present purposes. Its power is so great that if I turned it upon the people and sent out the suggestion of fear, they would probably go into an insane frenzy—perhaps some would die of fright. That is because the mechanism gigantically intensifies or magnifies, whatever word you like to use, the force of the thought-waves until they become a dynamic, driving, irresistible vortex of force—a terrific blast of thought-force. It becomes more than what we usually think of as thoughts, or thought; it is a physical power. This machine puts its sensitive but powerful finger on the place of the union or interaction of thought and matter, and applies the most powerful force existing directly to matter. To illustrate: A man with a powerful mind and weak muscles can lift only what his muscles are equal to. No matter how powerful his will if his muscles are atrophied or paralyzed, he can lift nothing at all. Will and muscle—mind and matter—must co-ordinate to achieve results. This machine supplies both. The thought power we have always had, but we have not before been able to achieve the mental muscles for it to act upon.

"Here is a point: It works *on all mind*. Note I do not say *minds*, but *mind*. You know *mind* is *mind*, whether manifested in a man, a dog, an insect, or—an elemental. Mind is the primordial essence. There are not two *kinds* of *mind*, but only degrees of manifestation and strength. This would affect a herd of cattle or sheep, a flock of birds, or a swarm of bees, just the same as a gathering of human beings."

"Ah! I begin to see!" exclaimed Professor Kasson, her keen, intelligent face brightening.

"Exactly. Now another thing we had to work out: this machine can broadcast in concentric waves in all directions, like ripples on a pool; or, it can be focused and sent out in any desired direction. Also, it can be set to affect any particular person, the length of whose thought-wave is known, or it can, as I have said, be

made general, to affect all wave lengths. But what you see here is only a small part—only one unit, which has been set up for a preliminary test. Other units can and will be added in series, like the units of a voltaic pile, until the force is incalculable—cataclysmic. It will be the basic force of all forces, incalculably magnified in power. A piece of steel, a stone, or a board cannot move itself, any more than a man's muscle or body, until this omnipotent thought force is applied to it in some way."

Melba Kasson's keen eyes remained upon Ello-ta expectantly, and as he started to turn away, clearly deeming the explanation sufficient, she put out a detaining hand. There was no indirection or pretense about this able girl. What she was, she was, straight from the shoulder, without any thought for consequences or appearances.

"All right, Mr. Ello-ta, but wait, won't you?" she pleaded, with a short little laugh. "I see somebody has to perform the duty of being stupid, and it might as well be I as someone else. Your explanation is very clear as to the general principles—very general. You've made it clear that the basic force in the universe is thought—whatever that may be; that it controls matter absolutely—whatever matter may be—and is the only thing that does or can control matter; that you first amplify that power, then direct or focus it, then drive it out as a terrific force to act on anything else that itself has thought-power. *But*——"

The girl chanced to turn to Mansonby. On his face was mirrored a number of emotions. "My dear Professor Kasson," he said, smiling broadly at her, "I could love you for that. Once more like that and the Interplanetary will be compelled to at least double your already sizable compensation. Thanks for relieving me of being the goat. Some day somebody is going to suspect that I don't know any more than the rest do." He swung round to the Cerean, but the girl stopped him with a laugh. "Please, Mr. Mansonby—I'll do the job to the end now. Remember you're supposed to know everything. Now, Mr. Ello-ta, as I was about to say, in behalf of people like Mr. Mansonby and myself—you've told us your device does certain remarkable things. *How* does it do them? *How?* Extraordinary as this assembled mass of apparatus is, it is still only dead matter. There isn't a speck of anything in it *but* dead matter; there isn't a speck of *life* in it. And yet it looks to—people like Mr. Mansonby and myself—as if, instead of mind controlling matter, this thing here takes hold of mind and controls it to its purpose. Please clear up a few points of the how."

Ello-ta gave a gesture of comic despair. "Now, Professor, why did you do that? I knew somebody would, but I thought I was through without it. However, since the damage is done, I'll have to crawl through as best I can. First, I may as well say now, since it would probably be found out later, anyway—there are many things I don't myself understand completely. The great mystery of the precise manner of interaction of mind and matter may never be made entirely clear. First, your point about the machine being a dead thing. So it is. But so, too, is everything else which the mind uses as a tool in executing its orders. You speak into a simple amplifier, which is nothing but an aggregation of dead parts; and yet immediately your voice is made many times more powerful. Substitute a microphone for the simple amplifier, and add a few other dead parts, and your voice is at once able to carry to a distant planet. Yet take away the voice—the mind behind the voice, let us say—the mind that wills to force the air through your vocal chords—themselves dead matter—and there is nothing left but dead parts; helpless parts."

He paused a moment to order his thoughts.

"Now, here, Professor Kasson: Why have we used women for this task? Because the female mind possesses a certain acuteness or intensity—a certain electromotive force, may I say?—that the masculine mind lacks. And why do we *train* them?"

"And how?" softly put in Professor Kasson, who was hanging on every word with bright eyes and bated breath.

Ello-ta nodded acknowledgement of the question. "Answering first the question, Why do we train them? To enable them to employ the utmost of their mental power. It is well known that normally the human being employs only a relatively small part of his potential mental force. This training is a matter of voluntary, sustained effort—experience. Answering your question, How do we train them? First, by placing their brains under the influence of a powerful electromental stimulating field of force, which wakens and vitalizes the dormant mental forces and makes them dynamic. That's the best I can give you on that at the moment, Professor. Then this awakened, stimulated, vitalized, and experienced force is turned through this ordinary simple telepath, which gives it coherence and body, directiveness, *focus*."

"That's clear." It was Mansonby. "Now this." He waved toward the super-machine.

"Yes. Right there is where this steps in—or, rather, where we step into it. We have now the mind forces of our 50 odd operators at their top notch of efficiency. They are now no longer the more or less aimless, half-dormant things, like the ordinary run of mentalities under no stress or pressure. They are at their highest possible potential. *Now*, we hook the 50 odd telepaths into the first unit of our assembly, as you have seen here. What does it do? This unit does no more than to give this aroused and powerful, coherent and focused mass of mental force a vehicle to travel on. It gives it amperage, or intensity, and electromotive, or driving force, exactly as an ordinary electric potential is increased by the proper means from a weak and inefficient force to one of devastating power."

He gave a dismissive wave of the hand. "That's all—all. The successive units which will be placed in circuit merely add more power—that's all. You have only to remember, then, that these unpleasant beings——" he gestured to the mass of sinister beings floating overhead "——are less physical than we, and more mental; that their physicality is almost nil, and their mentality vastly ascendent."

"That does not mean," Mansonby explained, "that these elementals are more intelligent than we are. Don't get the wrong idea there. What Mr. Ello-ta is saying is that the elementals are made of a more tenuous and sensitive substance, or, to quote Professor Sanderson here, 'the mental or spiritual *element* is highly ascendent over the physical'."

Ello-ta nodded. "Thanks. All that remains to say, then, is that when at dawn tomorrow the things I have been talking about are put in train, and our operatives concentrate on the emotion of fear, fear, *fear*, terror, terror, *terror*, there will drive into the midst of these elementals, permeating and possessing and dominating their *mind*—note I do not say *minds*—a blasting force of fear and terror that will, we hope, sweep them from our skies back to the hells they came from."

When the explanation was over and the company had left, Ello-ta and Sanderson, with the assistance of expert technicians, began preparations for the assembling and connecting in series of five other sets, each the same as the first. It had proven itself. They knew

what it would do. What remained was only the putting together.

Meantime, the trained women prepared themselves for their end of the task by super-charging their special potentials. At each of a hundred telepaths one of these super-sensitive ones would seat herself, bend her powers into it to the limit of human endurance. The preparation, under the charge of Hindu Adepts, would require all of the time until the assemblies were set up and made ready. Then this united current of thought power would surge into the first unit and through the series, magnifying as it shot through, and be focused upon the objective which hovered above them.

At last all was done and all were ready, awaiting only the hour before dawn. The mechanics had gone; the gods of the machine were snatching a few hours of rest before the supreme hour. One only could find no sleep or rest—or peace in her heart. Silently she arose from her bed and went up the special stairway to the room where waited the machine of the gods. She knew the machine well; knew every nerve and fibre and muscle of the thing, having watched when no one suspected; knew its every adjustment and part. Deftly she threw the switch, manipulated the adjustments, prepared all things, and then set herself, white-faced and grim, at the telepath that thrust into the series of units. This was her supreme moment, that would mean for her the happiness of the only heaven possible for her, or—the agony of a ceaseless Gethsemane, while life lasted. Whether the elementals went or stayed would mean not the snap of a finger to her if she failed now. She had never given up; she had always felt that she *knew;* but, Ah, God! she could not know —she could not *know.*

But now she would know.

A few moments she paused to gather her forces, the helmet-like affair resting snugly over the auburn crown above her brown eyes. Then slowly, steadily, as she had been taught—not violently or spasmodically or hysterically—gradually drawing into a fierce, savage mental cry, the dial set to the wave length she knew so well, she cast her whole sublime woman's soul from her body and out into space. For her this one thing only existed in all the vast universe that God had made. What were a few mere universes compared to this one that she desired now?

An hour passed—another hour—and the girl had not moved so much as a hair's breadth, shut up in the little cabinet, which was to be her heaven or hell. Of time she knew nothing.

Of one thing only she knew.

With a savage, fierce intensity to which man is a stranger, and which is the nearest to God of anything he has made, she sat at her task.

And then—she knew! She knew! It was done. Wildly she cast the helmet from her head, dashed from the cabinet, and into the hallway. How woman knows, man cannot tell. Near the door of the machine gods' room she waited. Was—was that a sound? No! Yes! Yes, it was!

In that supreme moment she did not wait for slow mortal eyes.

"Cyrus! My dear one!" her soul breathed forth.

And, "Little one! Little one!" came back the clear reply.

THEN he came. Not the Marlin she had known, but a figure bedraggled and swaying, bearded, unkept, and unkempt. But the woman, as ever with woman, saw only the soul of the man. Before he could take another step she had leaped for his arms. Without a word they clung together. After a while she led him back into the room of the gods of the machine, and sat him down and crept into his still powerful arms, and lay there quietly, happily, her face against his.

She remembered she had not turned off the machine. She did it now and hurried back to the heavenly arms. At last she spoke. "You have been in terrible trouble, Cyrus, my dear. I know you would have come if you could, but——"

"Where have I been, little one? Why, let me see. I had to do something for the—the Chief." He was startled. "The Chief! The Chief! Is he——"

"He is all right, dear," she soothed him, and he relapsed again.

"I went to—St.——"

"Yes, St. Louis, dear," she prompted.

"St. Louis, yes, and then to——" there had been an accident—he could not remember from then on—anything—except—Yes! His car had been wrecked! He seemed to recall dimly wandering, wandering, always wandering through the months, looking for something he could not find, or even remember. And then he had seemed to awaken as from some strange trance and found that he was in New York, and he had felt the irresistible call to go to that place.

"Never mind, dear, never mind. Don't try to remember—now. It will all come back to you. Don't try now. My dear one—my dear!"

A sound suddenly snatched her back to sterner realities, then, and she started up from the heavenly arms. "Cyrus! The dawn! It is nearly dawn!" She glanced at the brightening light through the windows. "They are coming at the dawn to make the supreme test of the machine here. Someone is coming now." She put aside his puzzled inquiries about the strange machine. "No—not now, beloved. I will explain it all later. I must fix you up before they see you, and be ready to take my place with the others. Come to my room. We must hurry. There is little time. I forgot. Come."

She took him by the hand and the big man went obediently.

They were hardly gone when the operatives and others began to arrive, and soon, with drawn faces and tensed souls these magnificent women—Adrienne Ello-ta and Therma Lawrence, the little Jovian Mary Terra, Narsatta No-tonta, the Martian, and the others, all picked with deliberate care for this supreme moment —were taking up their stations in the separate little sound-proof and vibration-proof cabinets.

Great Man was making his last grim stand against the gruesome fields of the primordial hell-pits.

When the Father Sun looked above the great waters, the people awoke to their salvation. In all the sunlit firmament there was not a lingering sign of the detestable enemy.

At the close of a day Mary Terra took Cyrus by the hand, now pretty much himself again, and they went out and strolled by the rainbowed fountains of an evening that was sweet of grass and flowers, and the city—and the whole regenerated Earth—was immersed in fragrant peace.

THE END

The FLYING

HOW does it happen that the silks that come from China and Japan are of so much superior quality to that obtained anywhere else in the civilized world? It is hardly likely that the difference can lie in the manufacturing process only. Obviously the special attention that the silkworm receives in its developing process has much to do with it. If entomologists should begin to devote themselves to the further development of harmful insects or otherwise, in the form of specialized and enlarged breeding, some mighty exciting things might happen. Negligible as entomologists may seem in warfare, they might easily prove responsible for a dangerous menace to the universe. Giant insects are not an absolute impossibility and they might quite conceivably be made a fearful danger. "The Flying Threat" embodies an absorbing theme and is beautifully handled. Dr. Keller is at his best in this fascinating story, and though he adheres closely to scientific possibilities, your interest and suspense is held to the very end.

CHAPTER I

Two Peculiar Eggs

THE telephone bell rang.

Dr. Anna Rock, considerably annoyed, placed her book on the table and picked up the receiver. She listened to the voice at the other end of the line and then replied sharply: "Tell him that I refuse to see him. I have told you repeatedly that I see no one except by written appointment. Tell him to leave or I will have him arrested for trespass."

Then she slowly replaced the receiver, picked up her book and started to read. She had a great deal of studying to do and only a limited number of years to do it in. Consequently, she felt that there was no time to be lost in endless conversation with unimportant persons, particularly of the male sex.

Dr. Anna Rock had inherited a considerable estate from her parents. To this she had added for many years from her income as a physician. At the age of

THREAT

Illustrated by MOREY

By

David H. Keller, M.D.

Author of:
"Revolt of the Pedestrians,"
"Stenographer's Hands," etc.

It remained quiet so long as its hunger was satisfied

thirty-nine she had ceased to practice and had decided to devote the rest of her life to a very intensive study of insect life. She was not interested in the insect world as a whole; there were large sections of it that she despised and detested. The very thought of some bugs and ants made her shiver. Consequently, she was decidedly distinctive and selective in her desires to become an expert in entomology.

In making her plans for the rest of her life she had to have a suitable place to live, definite programs for each year of her future life and sufficient leisure to devote to study. She not only had to have a quiet place to live in, but that place had to have the necessary requirements to support the particular life she was interested in. Weighing all these points carefully, she bought a ten-thousand-acre tract of land in New Jersey, bordering on the Delaware River, which included the mountain range forming the eastern barrier of the Delaware Water Gap.

Being accustomed to precision all of her adult life, it was but natural that the first thing she did following the purchase of this land was to have it carefully surveyed. Her next act was to build a ten-foot fence around the tract, the upper three feet being composed of barbed wire. Thus she was able to give adequate protection to all the wild life that for centuries had lived in these almost inaccessible mountains. A carriage road from the ferry at Shawnee made her cabin accessible, but this road was securely barred by a gate, to say nothing of a trusty Irishman, who lived at the Lodge for no other purpose than to admit only desirable persons.

The ten-thousand-acre tract included two interesting natural wonders. One was Mount Tammany, the eastern half of the Gap; the other was a lake of peculiar beauty, located on the very top of the mountain range, a few miles north of the Gap. This lake, three-quarters of a mile in length and less than that in breadth, was evidently fed by some peculiar subterranean spring, as no stream of water flowed into it. The shore was sharply defined with masses of gray sandstone; white birch and spruce bordered its edge and were reflected in its crystal waters; perch, undisturbed for centuries, formed a piscatorial colony. Often for hours at a time the only moving thing on the lake would be the reflected image of clouds in the sky. Then, usually at dusk, the perch would come for flies, and later the moon would bathe in the limpid waters. It was a lake of beauty, made more beautiful by solitude.

On this lake Dr. Rock built her home, which she called, ironically, a cabin. In its nineteen rooms were located every convenience necessary to make life comfortable. There were fifty electrical servants, a library, and a work-room. Two women, one a widow, the other the wife of the gatekeeper, cared for the cabin, kept it clean and cooked the meals. Thus, the physical existence of the doctor was well cared for. Her social life included one friend, made years before, a lovely vivacious woman, who satisfied in every way the longing for intimate friendship possessed by every individual.

Amid these surroundings the doctor studied the *Lepidoptera*. Her love of the beautiful found expression in the study of the multi-colored moths and butterflies of North America. Her special scientific interest was in the silkworm, and the fact that mulberry trees grew rapidly on the Kittatinny Range, was one of her lesser reasons for selecting this site for her permanent home.

On this special morning she was waiting for Helen Brown. They had made an appointment to spend the day together, to hunt for some orchids, which they were sure ought to be in the woods, but which, so far, they had never been able to find. While waiting she read over again the pages of Malpighi's treatise on the silkworm, published in 1669. Naturally, she was irritated to have O'Malley call from the Lodge about a matter which he should have settled easily himself. She was more provoked when he called the second time about the same person.

"I am sure enough sorry to have to trouble you, Doctor Rock," he said, "but this party down here says that he just has to see you. He says that you will be glad to see him when you know his business."

"Well, what is his business?" asked the doctor, sharply.

"He wants to sell you some eggs."

"Eggs? You know well enough that I have nothing to do with the buying of eggs. Have him wait and see your wife."

"He wants to see you."

"Tell him I will have him arrested if he does not leave —and O'Malley, Miss Brown is going to come soon. After you let her in lock the gate and come up with her. I have some important mail for you to take to the post-office at North Water Gap."

"And you will not see the man?"

"Never."

The doctor again picked up her book on silkworm culture. Fifteen minutes later Helen Brown rushed into the doctor's room to drag her out into the woods. The doctor picked up some letters and went to see the gatekeeper before she started on her orchid hunt.

"Get rid of your pest?" she asked O'Malley.

"At least, he left, Doctor," was the respectful reply. "He said that you would buy the eggs if you saw them."

"Well, what was so wonderful about them? An egg is an egg, isn't it?"

"A hen egg is, but there are lots of different kinds of eggs, and, from the way he talked, I fancied that these were not just ordinary hen eggs."

"What did he look like?"

"He was a foreigner of some kind, Doctor, with a longish beard and he had the eggs in a basket with a white cloth tied over the top. He had walked up from the ferry and he was hot; said he was used to cooler weather where he came from."

"Did he leave?"

"No. Still sitting on a rock outside the gate, sort of thinking and sucking his thumb."

"Keep him there. Take these letters to the post-office, and when you see him tell him to leave and not come back."

Ten minutes later O'Malley was on his way to North Water Gap, while the doctor and Helen Brown were already in the dark spruce woods, hunting wild flowers. They did not return till it was time for dinner. As soon as they entered the cabin the doctor was met by Mrs. O'Malley.

"The phone has been ringing, Doctor. You are wanted on 207-J."

The doctor went to the 'phone and called that number. On being connected, she listened for a few seconds and then said, almost harshly, "No! I do not want any eggs!!" and hung up. Then she turned to Miss Brown.

"This 'phone is going to be the death of me, Ellen," she said. "I am either going to take it out or have a private number, not listed in the directory. Here is a wonderful example of the way it works to keep up my blood pressure: A pest comes to the gate to sell a few eggs. He insists on seeing me, and bribes O'Malley to 'phone to me and find out if I won't see him. Of course, I refuse. Now he goes to a pay station and calls me up. Won't I at least look at the eggs? What did he think my time was worth? Why should I look at a hen egg unless I am ready to eat it?"

"Perhaps it was another kind of egg," suggested Miss Brown.

"Let's eat," was the reply. "Perhaps your stupidity is the result of hunger. Perhaps it was a rooster egg or a turtle egg or an ostrich egg."

IT was late in the afternoon before Miss Brown returned to her summer bungalow across the river. She frequently spent the night with her friend in the cabin on the Lake of the Mountain, but this evening she was expecting company of her own. The doctor ate a light supper and then went out on the stone terrace to watch the approach of night. Just at dusk an airplane hummed noisily over the lake, and a few minutes later she heard the sound of splintering glass. The noise came from her small conservatory. Running there, she found a man trying to shake off the folds of a parachute, and at the same time make his way out of the broken frame of the hot-house. The doctor watched his efforts in silence. Finally, the man unstrapped himself and took off his hat with a polite bow, as he said:

"Are you Doctor Rock?"

"That is my name," replied the doctor.

"My name is Timothy Jones. I have been trying to see you all day."

The doctor shook her head. In spite of the gathering dusk, she was beginning to see daylight.

At last she said, "You are the man who wanted to sell me eggs?"

"Yes, Madam. I am that man. Your gatekeeper said you would not see me; so I telephoned to you and still you refused—— Then I went to the Commercial Air-Field at Sciota and hired a 'plane to take me over your place, and at the right time I jumped. I am sorry about your hothouse, Madam. But I was so worried about not breaking the eggs that I didn't think of anything else; and it was the first time I had ever used one of those umbrella things."

"So, you brought the eggs with you?"

"Yes, Madam. I knew that you would not want to see me without the eggs."

"All right. I will buy them. How much a dozen?"

The man placed the basket down on the ground and started to take off the cloth cover. He looked up.

"I only have two eggs, Madam, but they are nice ones," and he placed one in the doctor's hands.

It was too dark to see clearly, but she felt that she was holding a round object, at least eight inches in diameter, with an exterior that was almost as smooth as glass. She took a sharp breath.

"What is it, Mr. Jones?" she whispered.

"Just some kind of an egg," was the reply. "If you want to buy the two of them and will let me sit down somewhere, I will tell you about them. That is, I will tell you all that I know about them."

"I'll buy them. Put this one back in the basket and come with me to my library. Have you had supper?"

"No, Doctor Rock. I left the Water Gap early this morning and I have been so busy trying to see you that I forgot about eating since breakfast. I just couldn't rest till I showed you those eggs."

The doctor ordered supper for the man, and while he ate, she sat, silently looking at the two eggs. Perhaps one was a trifle larger than the other, but otherwise they were identical. The shell was smooth, and slightly elastic, like the egg of a reptile, while the color was almost a dead white. At last the man stopped eating and the doctor rang for the maid to come for the dishes. Then she started the fire in the open fireplace and told him to make himself comfortable and begin with his story.

"It is not much of a story," he said. "I told you my name—Timothy Jones. Before the war I was a grocer's clerk, working in an Atlantic and Pacific Store, and I was happy and content at my work. Then came the war and I saw some very hard service over there, and when I came back I was not the same as I was before. I had no pleasure in selling sugar and oleo and writing the advertisements for the Saturday Specials. It seems that I had been in such big things, Madam, that the life of a grocery clerk seemed impossible; so I started to see the world, and there is no doubt that I saw it. I would go to some place, like Benares, where they have cows in the churches and have the most peculiar way of doing their stable work. There I would hear of some dead city in Siam, and forthwith I went there. I continued, just like I could not rest, and finally I landed in Central Borneo and found a white man there who wanted me to work for him. He didn't say what the work was, but I found out soon enough, and though he watched me real close, the time came when I made my escape. Finally I landed in New Orleans. I bummed my way up north, but all the time I carried the eggs with me, and at last I got to Port Jervis. That used to be my home town. I had charge of the first A. and P. store opened there. I had been away for years and everything was different. The girl I used to go with, she was married and had grown children; so, I started to walk down the river valley. All the time I thought I would sell those eggs sometime, especially if I could find someone to listen to my story and believe me. Up at Milford I met a man who said you were interested in butterfly study, so here I am."

"You mean to say?" asked the doctor, but for some reason she did not have the courage to finish her sentence.

"I mean to say," replied Jones, "that these eggs are butterfly eggs. At least, I think so; though they might be something else."

"Did you ever see butterfly eggs?" asked the doctor.

"Not to know them."

The doctor left the room for a few minutes and then returned with a small leaf in her hand.

"Here," she said, "are some of the eggs of the tent caterpillar. You can see them with the unaided eye, but they are just like little dots. They are about the average size of butterfly eggs. I do not pretend to be the world authority on butterflies and moths, but I know a great deal about them. These large things you brought here are not butterfly eggs. Why, if butterflies were produced from such eggs, they would be enormous. I can hardly tell how large they would be. That is my answer, Timothy Jones. You put those two things back in the basket and the cover over them and I will have O'Malley come and take you to the gate."

"In other words, you think I am a liar?"

"Something like that."

A change came over the ex-soldier. Somehow, he seemed to sit straighter and have a little more intelligence in his face. His voice became hard, decisive.

"I can hardly blame you, Doctor Rock, but at the same time, it is a fortunate thing for you that you are not a man. I may have been a grocery clerk in an A. and P. store, but no man ever called me that and got by with it. The trouble with you is that you just cannot imagine something you have never seen. Now, with me, I do not have to imagine what those butterflies are like, because I have seen them. Yes, Madam. I mean just that. I have seen the butterflies that laid these eggs, or some just like them. It is because I saw those flies and moths and other things that I decided to leave that man and come back to America; because I became afraid."

"What were you afraid of?" asked the doctor coldly, unsympathetically. "I should think that a soldier who had been through the World War would not know what fear was."

"That is just what made me afraid. I have seen men killed in every way in war and stood it, because it was just a part of the game. I would like to tell you what I saw in Borneo, but what is the use? You would just think I am insane or shell-shocked or something like that. But you can take them or leave them. They are just what I said they were—butterfly eggs. I am going to keep on till I sell them, because I need the money. If you had faith in me, I would like to stay here and talk to you some more and perhaps stay and work for you until the eggs hatch out. I saw a lot of that the two years I worked for that man in Borneo."

DOCTOR ROCK looked at the man. There was no doubt in her mind that he was in earnest. She hated to make a fool out of herself, and at the same time she dreaded the thought of his taking the eggs to one of her rivals in the field of entomology. She did not want to employ the man, but she did want him available for at least a year.

At last she said, "Suppose I give you five thousand dollars for the two eggs? That seems to me to be a fair price. Then I will set you up in some kind of business in Shawnee, the understanding being that you promise to stay there till the eggs hatch. How about it?"

"That is fair enough. I will take that offer."

"I suppose you will want to open a grocery store?"

"No, not exactly. I want a lot of leisure and something that is different. I was pretty tired of selling groceries, especially butter substitutes. I thought I would open a hosiery store, if I could finance it. Silk stockings are going to be popular again some day."

"No," said the doctor, "everybody is wearing cotton again."

"That is because the silk ones wore out so quick and were so expensive. But how about it, if the silk thread was heavier and practically everlasting? That may come some day. Perhaps you may have something to do with it, Doctor Rock."

"What makes you think I am interested in natural-silk production?" asked the doctor, eagerly.

"That is what the man up at Milford said. He thought you knew more about it than almost anyone in America."

"Well, suppose I do? What has that to do with these eggs and your opening a store to sell silk stockings?"

"Simply this: These eggs are, or at least I think they are, the eggs of the silkworm. Not the kind they have in Japan or China or anywhere else at the present time, but a giant silkworm that this man bred in Borneo. I tried to get the egg of a male and a female, and if you can breed them, you may be able to make some natural silk right here in America that will revolutionize the industry. That is what the man went to Borneo for in the first place, but after he had been successful with the silkworm, he started in other things. I hated him when I realized what was in his mind. I hated him and was afraid of him too, and it was just God's providence that I was able to escape alive."

The ex-physician scientist never replied. She simply started to write a check for five thousand dollars. This she handed to the ex-service man.

"You stay here all night as my guest, Mr. Jones," she said. "Tomorrow we will go over to Shawnee and see about a location for your hosiery store. If what you say is true, I will see that you are well taken care of for the rest of your life. But you must promise me that you will stay near here to help me raise these eggs. Do you realize that you have only told me a little part of your story?"

"I know that, Madam, and I have tried to tell you why. The time I was with that man in Borneo I saw some very peculiar things, and most of them no one would believe, especially not a hard-headed business woman like you are, not meaning any offense, Doctor Rock, in calling you hard-headed. Some day when it is raining hard and you cannot do anything else, I may come up here and tell you all about it, but just now I think that the less said about the ideas of that man in Borneo the better."

The doctor had Jones shown to his room and then she took the basket, placed it on a chair in front of her and sat and looked at the two eggs. Now and then she felt them. Her fingertips, delicately trained by long years of examination and treatment of the human body, vibrated at the peculiarly smooth, polished surface. She took a flashlight, placed the lens against the further side of an egg, turned out all the lights in the room and turned on the flashlight. The trans-illumination was nearly perfect; the whole egg glowed softly. Turning on the lights, the scientist placed the basket of eggs in her safe, and called O'Malley on the 'phone.

"O'Malley," she said, "Sorry to bother you, but I want you to take me across the river right away. I have to see Miss Brown. Bring the car around as soon as you can."

And to herself she said, "This is the largest, most wonderful thing that has ever happened to me, or perhaps to any entomologist. I want to talk to Helen about it. She may not be able to follow me, but at least she will stimulate my thinking by serving as an audience for my monologue. Eggs! Two eggs!! If they really are a variety of silkworm egg, the entire industry will be revolutionized."

CHAPTER II

The Silk Worm

HELEN BROWN was sleeping soundly in her little two-room bungalow on Topcrest, on the Pennsylvania side of the Delaware, just about opposite to her friend's palatial cabin on the Lake of the Mountain. She had entertained company for supper, but they were gone, the dishes were all washed and she had at once retired for the night. Her first deep sleep was rudely disturbed by an insistent pounding at the door. The clack-clack-clackedy-clack of the doorknocker was in the code used only by her friend, Doctor Rock.

Miss Brown lit a candle, opened the door and at once returned to her bed and comfortable blankets and quilt. It was early spring and that meant cold nights on Topcrest. The doctor, without saying a word, raked the ashes in the little open fireplace, put in an old copy of the *Morning Sun* and some kindling, and when the time was ripe, a fat piece of pine. Then, making herself comfortable in a Morris chair, she started to talk.

"Somewhat of a surprise, Helen," she said, "you were not expecting to see me, were you?"

"Nothing you do surprises me, Doc," was the sleepy answer. "You tell me to go to bed early and get all the sleep that I can, and then you come and make night hideous for me. Just because you have insomnia is no reason for pestering me, is it?"

The entomologist laughed at her friend's tirade.

"You will forgive me, old fellow, when you hear my story. But first, let me ask you how much your stockings cost you a year, and why?"

"Those stockings are a nightmare," was the reply.

"I pay anywhere from two to four dollars a pair and they last just about three washings on an average. They develop runs faster than I can buy them."

"Why?"

"Rotten silk, I guess. I asked a New York stocking buyer the same question one day and he said that it was hard to get the best grade. It seems that all the good silk is kept in China and Japan and we just get the leavings. He said that real silk of the best grade was almost everlasting."

"I believe him," said the doctor. "I have my grandmother's wedding dress. The material is just as good today as the day it was bought. Her father brought it with him from Japan. Do you know anything about the silk industry? I judge not. I won't worry you with the bug side of it, but let me tell you about the silk. Each cocoon furnishes from 500 to 1200 meters of a silk thread, but unfortunately, this thread averages only about one-sixteen-hundredth of an inch in diameter. Of course, this is too fine to use as a thread; so, singles are made, consisting of one strand of twisted silk composed of filaments from eight or ten cocoons. A thread is then made out of two or three of these singles, and in making the actual material, the silk dress goods, the woof is often made out of several threads. That is the way real silk is made. But there is a great deal of material that the Orientals think is worthless. This is called silk waste. Take a cocoon with the chrysalis inside. It weighs about 50 grains. Only one-sixth of this weight is really pure cocoon, and of that sixth, only one-half can be reeled off as silk. For centuries the Orientals have thrown the waste away. Now they are spinning it and selling it to the rest of the world. That is why your stockings wear out as rapidly as they do."

"That is all very interesting," said Helen Brown, sarcastically, "but hardly worth while being awakened for. How is it going to help me save money?"

"Simply in this way. Suppose we were able to produce cocoons that gave a thread a mile long and large enough to weave directly instead of taking twelve to twenty filaments to make one thread. Suppose we could grow cocoons like that in America, what then? We could force the Orient to send us their best silk or none at all. In fact, it would make no difference to us whether we bought from them at all. The silk would be permanent. Of course, I can see an objection to that, because women are always wanting to change styles and colors, but it would be so satisfactory to be able to buy a pair of hose and wear them the whole year. A woman who could do that would save time, money and nervous energy, no matter what the perfect stockings cost her a pair. Think what a satisfaction it would be to go out in the morning perfectly clad and know that not a single runner would appear the entire day or the entire summer!"

"That would be very nice," said Helen Brown, lazily, "but how do you do it?"

"I believe I can produce perfect silk. Perhaps the cocoons will be twelve or fifteen feet high."

The sleepy woman sat up in bed.

"Anna Rock! Are you drunk?"

"Not at all, but I feel intoxicated with the idea. I bought some eggs tonight. The man was pestering me all day; you remember that I told you about him? Well, he called on me this evening. Dropped down from an airplane and landed on my conservatory. It ended in my buying his eggs."

"Hen eggs?"

"No, Silly! Silkworm eggs. Beauties. You will go wild when you see them. For the life of me, I cannot identify the species, but the man insists that they were laid by a mulberry feeding moth. I am going to have you meet him tomorrow. He is a man with a past. You have always said that if you ever met a man with a real past, you would marry him. He told me just enough to make me die with curiosity to hear the rest. He won't tell me now, because the poor fellow is shy and thinks that I will look on him as a liar. I have the two eggs safe up in the cabin; he is sleeping in my guest room, and tomorrow I am going to set him up in business in Shawnee."

"And you wake me for this? That means that I shall have to be his main customer, and that implies the sale of another bond to pay the bill."

"My dear child," said Doctor Rock. "Take my advice. When you buy hose from Timothy Jones, you buy one pair a trip and the cheapest he has and buy them often, because I feel that he is a real man and he will not remain a bachelor for long at Shawnee in that business. If you do not marry him, someone else will."

"I don't want to marry, Anna," pled the younger woman. "So long as you live, I never am going to marry. It just means cooking and bills and babies, and I am satisfied with life as it is. If I was sure of finding a he-man who was also a gentleman and had a past, I might take a chance; but these bifurcated animals, who call themselves men, just nauseate me."

The scientist stood up and put on her coat.

"Just think it over. Come up and see us tomorrow. Have dinner with us. I have to go now. I guess O'Malley is dead to the world and nearly frozen out in the car. Think it over. This may be a great day for both of us. Me finding a giant silkworm and you a perfect husband."

"The door is over there," said Helen Brown. "When you go out, shut it softly so as not to awaken me, for I am so little interested in your remarks that I will be asleep by the time you reach the door. Yes, I will be over for dinner, but not to meet my future husband; rather to serve as a chaperon. Hells-bells! You probably will end up by marrying the man yourself. I never heard of your sleeping a man up there before."

"He is safe, and so are the eggs. I am going to ask him to shave twice over, and he is going to have some new clothes before you see him."

"Have him dress like Adolph. I just adore that kind of man—on the screen," was the sarcastic reply.

Dr. Rock returned to her cabin on the shore of the Lake of the Mountain. Before retiring she opened the safe and looked longingly and lovingly at the two eggs.

CHAPTER III

Hatching the Eggs

THE next morning Timothy Jones and the entymologist had breakfast together. Immediately afterward the Doctor announced that they were going to Stroudsburg to buy the former grocer clerk some clothes.

"If you are going to sell hose in Shawnee," she said, with a very definite air of authority, "you will have to be one of the best dressed men there. Of course, we cannot get a complete outfit for you in Stroudsburg, but we can buy enough to last till we go to New York to buy your stock. I am anxious for you to make a success in your new store. For some reason you have a rather definite inferiority complex. If you can overcome that, you will make a success out of life. Nothing makes a person feel better than to be well dressed. But we have to hurry because I am going to have company for dinner and you must have on your new things when they come."

Timothy Jones looked at the woman in a certain mild astonishment.

"That man in Borneo was a hard man to work for, Doctor."

"Yes. What of it?"

"Oh! Nothing. Only I ran away from him. Since the war, after I saw so many people killed, I have had a longing for freedom. That is one reason why I did not want my old job back in the A and P store. The inspector came around every week and gave me orders. I was rather fed up on orders by the time I left the army, Madam."

The woman laughed.

"I will admit that I was rather dictatorial in what I said about the clothes, but it was really for your own good, Mr. Jones."

"I know. That is what the inspector used to say if I argued with him. But we will buy the clothes this morning. I am always willing to try anything once, and a promise is a promise. I told you that I would stay around here till you hatched out the eggs and got the hang of raising the worms, so I will stay. But I will just be asking you this one thing, Doctor Rock, and that is to make the staying as easy as possible for me. You see, you really need me to help you raise those silkworms."

"Oh! I know how to raise silkworms," said the doctor.

"You never raised any worms like these," Jones replied.

However, the morning was spent in buying clothes in Stroudsburg and getting a haircut and, on the way back, renting a store in Shawnee. It was after one, therefore, before Timothy Jones was ready to walk downstairs in his new clothes and join the ladies who were waiting for him in the library. Clothes cannot make a gentleman, but if a man is already one, they certainly add to his appearance, and the ex-service man almost looked like a banker as he entered the room to be introduced to Miss Helen Brown. To say the least, that lady was surprised. She had expected to meet a tramp; instead, she was introduced to a globe-trotter, whose very air of diffidence added to his appearance. The doctor at once led the way to the dining-room and absolutely refused to talk shop of any kind during the meal. As luck would have it, however, the subject of orchids was introduced at the very beginning of the meal, and Mr. Jones was asked if he had ever seen any in his various wanderings around the world. At once, he brightened and actually talked for over ten minutes about these parasitic plants. He had no particular, definite, scientific knowledge of his subject, but he was able to present his experiences in an interesting way. He ended by saying:

"It might be interesting to you ladies to hear of an experience of mine down on the Amazon River. I had heard a lot about the man-eating plants and naturally, I wanted to see one. I was that way for a good many years—if I heard of anything new, I wanted to see it myself. After a hard trip, which was financed by a rubber company—you see, I was employed as a scout to find new rubber forests, but I was allowed to go about where I wanted to, and was to be paid when I came back—and many of the boys never did collect their back pay—well, anyway, that is how I happened to be in the Amazon River district, and when I heard about these man-eating plants, I wanted to see one. They are an orchid; I guess there is no doubt about that; at least they look like some of the others, only they are bigger and have a habit of eating meat. As far as I could see, it did not make any difference what kind it was, just so long as it was meat and fresh. They are curious things to look at and all around them are piles of white bones. They suck all the juice out of the bodies and then throw them out on the ground, and the ants pick the bones. One of them saved my life, and that is one reason for my being thankful to them. I was being tracked by a cat. Yes, Madam. Of course it was not an ordinary house cat, but a wild one, like a panther or cougar. The cat was so interested in hunting me that he lost his caution, and the first thing I knew I heard him screaming and saw him up in the tree, being pushed right down into the middle of the flower. I made sure that there were no more plants like that in the neighborhood, and then I sat down to see what was going to happen next. The poor cat just cried once or twice and then everything was still, and in about an hour his body was thrown out on top the pile of white bones and the ants and beetles got to work on the hide and bones. Now, that plant could have taken me just as easy as it did the cat, but the cat was handy; so, I am here telling about it. Lots of times things like that happen to me. Once in the war, a chap in our squad went to the Corporal and asked him to have my place in the front rank, because he could drill better than I could. The Corporal put him there and me right behind him, and one day when we were marching, he was killed by a stray bullet. Just another example of how things work out for me."

"Before you talk any more," said Doctor Rock, "let's adjourn to the library. I want you to tell me how to start hatching those eggs. Is it the right time of the year? And what do they eat?"

After they were comfortably seated and the eggs had been brought out to show Helen Brown, the former grocery man started to tell what he knew about the eggs.

"I suppose you have mulberry trees up here?" he asked.

"Certainly," answered the doctor. "Ever since I came here, I have been raising silkworms—in fact, that is one reason why I bought this land. There are a number of old mulberry trees on it, and I have set out several thousand more."

"What time do they start with their new leaves?"

"About two weeks from now."

"Just in time. You get an incubator of some kind and place those eggs in it and keep it rather warm, about real summer heat—say ninety. In about ten days the worms will break through the eggs and be ready for their first meal. After that, all you have to do is to see that they are kept at a temperature of about seventy, because they might be chilled with your cold nights. When they get some size, you need not worry. Just turn them loose in the woods and have a man stay with them and watch them. Perhaps you will need several men. Down in Borneo the man used a whole tribe of natives. The worms will moult about four times: on the sixth, tenth, fifteen and twenty-third day after they are hatched, and then they will start spinning their cocoons. I have seen a lot of them do that and it is most interesting. You see, they are so big they can be watched easier than a little caterpillar. If the temperature is kept at seventy, they come out as moths in about fifteen days, and then they get married and lay about five hundred eggs and die."

"Do you mean," interrupted Miss Brown, "that one female moth will lay five hundred eggs as large as the two you sold Doctor Rock?"

"Yes, Madam. That was about the average."

"That is impossible!"

"I knew that you would not believe me and that was why I did not want to talk so much about it. There are a lot of other things I saw when I was with that man in Borneo, but if you think I am lying about the silkworms, you never would believe the rest of it."

Doctor Rock joined the conversation. "I have an idea, Helen, that Mr. Jones is telling the truth. At least, he thinks that he is telling the truth. And that is the same thing. Now, there is just one question

I want to ask him and that will determine some things in my mind that are at present rather questionable. Mr. Brown. Your story, and your eggs and caterpillars and moths are all very large. In fact, they are unusually large. How did he control those moths when they were ready to fly, and what did he do with his surplus?"

"I CANNOT tell you all about it, but it seems that he had been working down there for a good many years. He found some large silkworms to begin with, and he fed them for size. Gave them some drug, and later on used some kind of X-ray on the eggs. He claimed that this killed some, but the rest were stimulated. You understand that he went to Borneo in the first place to grow a better grade of silk? So, a lot of the cocoons were used for silk, and in those instances the pupa was killed, and the cocoon spun into silk. He saved two or three of the best cocoons and let them develop into adult moths. They are sure enough big when they come out of the cocoon, but seem lazy and stupid for a day or so, and during that time the man had them chained to trees. He used a heavy chain, not as heavy as they use on elephants, but pretty strong. He chains them to trees near each other and after they lay their eggs, they die, and then he has them thrown into the river, and the fish and turtles eat them. He keeps the place cleaned up all the time. He moves his camp every week or so, and in that way has lots of food. Of course, he has a main camp where he has his workshop, but the caterpillars range over a lot of country when they are growing. They eat a lot."

"And the natives like to work for him, herding the caterpillars?"

"No. They do not like it," was the serious reply, "but they like it better than being killed, and that man has them in a state of terror all the time. They are so afraid of him that they are willing to do anything he tells them, just to keep on living. He gets lonely at times and employs a white man to stay with him, but the time always comes when they want to return to civilization and then he kills them—to keep his secret. I managed to get away from him, and I suppose he was rather mad about it. He told me once that he would destroy the human race if his secret was betrayed. He is sore at everybody anyway; ever since the Germans lost the war he has been angry; at least, that is what he said; mad at the Allies for winning and the Germans for not winning. I had the idea that there was something wrong with his mind."

But Doctor Rock was not satisfied. She had to ask one more question.

"How did he kill those white men?"

"He did not really kill them himself. He just fixed things so they were killed."

The scientist shrugged her shoulders.

"Why not come right out and tell the whole story?"

"My usual reason. I know that you will think I am a liar. I suppose you think that now. The only way that I can show you I am telling the truth is to have the eggs hatch and that will take time. Till then I would rather not talk too much."

"All right," said the doctor. "Helen, will you go with us to New York to buy that incubator and the stock for the hosiery store? We are leaving at once. I am not going to rest in peace till I have at least tried to hatch those eggs. We will have O'Malley drive us, and we will start in half an hour."

"But I haven't any clothes."

"If I might interrupt," said Timothy Jones, "there are a lot of stores in New York City where the lady can buy clothes. When I was there, I was really astonished—to see how many ladies' wear stores there were."

It is hard to tell whether it was this profoundly true statement of the ex-soldier or just woman's natural curiosity, but when O'Malley started out in the automobile to New York, Helen Brown was one of the passengers.

The next two days in New York city were most peculiar ones for all three of the party. It was no unusual thing for the two ladies to spend several days in New York, sight-seeing and theater-going, but it was a distinct novelty to both of them to have a man in the party and especially such a man as Timothy Jones. There was no doubt about the fact that Helen Brown was jealous. She was accustomed to come first in the mind and attention of Doctor Rock, and to have that lady give over half of her time to a man was a very difficult fact to face and live with. Doctor Rock, for the time being, was of a one tracked mind, and on that track ran little else but silkworms. In the theater, wholesale hosiery houses, salesrooms for scientific apparatus and restaurants, it seemed that there was nothing of interest to her but silkworms. She was enjoying the experience. At the same time, she was watching the attitude of her friend toward the new masculine element in their lives.

Helen Brown tried to ignore Timothy Jones. But he was a hard man to ignore. In the metropolis, under the careful tuition of the entomologist, he had effected a metamorphosis, as wonderful in its way as the changes that took place in the silkworm. In an evening suit that was one hundred per cent perfect, Timothy Jones looked the part of a typical man of affairs. It was only when he talked that the real man appeared, and even that real man, though he had been grocery clerk, soldier and tramp of fortune, was a male that was unique in his way and in every way well worth while. He had had many strange experiences, from all of which he had emerged with credit. Consequently, it is not in the least remarkable that he was able to spend these hours in the city with two ladies who knew every detail of correct behavior, and satisfy their idea of correct behavior in their masculine escort.

Their shopping ended, the trio went back to the Delaware Water Gap. Doctor Rock urged her friend to visit her for a few days, but she refused to do so until she was sure that the new hosiery salesman was safely out the way, and selling ladies' wear of one kind or another in the little store at Shawnee. She bluntly told the doctor that she had stood all of Timothy she could for the time being, and while she was not averse to talking about silkworms, she would appreciate a few minutes of her friend's time, hunting orchids or something, or just visiting with her—the two of them alone in the library.

Dr. Rock was so interested in her incubator that she was poor company for anyone; so the two women came near quarreling and Helen Brown withdrew to her own amusements at Topcrest. The adventurer was busy unpacking his stock and arranging a window display in his store. The season was early, as far as the summer boarder was concerned, but it was not long before every woman in the vicinity, and even a few from Bushkill, visited his store and made a purchase. One of his peculiar ideas in regard to this new type of salesmanship was to wear a Tuxedo morning, noon and night. This one fact brought him more customers than anything else. The news spread, and many times a day he was forced to give his explanation.

"You see, it is this way, Madam," he would say, "Before the war I was a grocery clerk in an A and P Store. No matter how hard one tried, it was difficult to keep clean. Now I am in a business where I can dress nicely, and I feel that I am going to have many customers who will appreciate it. Of course, it means that I am going

to have to shave twice a day, but I can easily do that during the lull of noon tide. I do not know whether this is the correct dress to sell hose in, but it is a very comfortable one to wear."

ON the tenth day of the incubation Doctor Rock telephoned hastily to the hosiery salesman and then to Miss Brown. She thought, from the appearance of the eggs, that they were going to hatch and she wanted everyone there when it happened. Helen Brown lost no time in making the trip across the river, but it was several hours before the ex-soldier appeared. He made no effort to give the reason for his delay.

"You see, it was this way, Doctor Rock," he said. "Just as you called, one of my best customers came in. She comes every day and buys several pairs of hose at each visit. Must be some reason for her doing that; she surely does not wear them out so quick. In fact, I asked her one day and she said that so long as she paid for them, what she did with them was her own business."

"So, she comes every day?" asked Miss Brown.

"Yes, Madam; she has not missed a day since I opened the shop. She comes at odd times when there is no one else in the store. I asked her to come to my afternoon teas, but she always says she prefers doing her shopping when we can be alone."

"Are you serving tea?"

"Yes, Madam, and if you had done me the honor of calling at my shop, you would have known of that fact. When I was in the war, I was with the British for a while, and I liked their idea of drinking tea in the afternoons. I am serving tea and cake at four, and it is well appreciated by all the ladies."

The lady from Topcrest turned to her friend.

"Show us your eggs or your bugs and let me go. If I stay here much longer, talking to Mr. Jones, I will explode. It seems he must be a social lion in Shawnee. That dame must be a centipede. Why does she have to pester the poor man that way? Have you told her that you used to be an A and P clerk, Mr. Jones?"

"I did."

"And what were her comments?"

"She said she did not believe me. Thought it was a joke. But let us look at the eggs. They are doing very well, Doctor Rock. They will be out in a few minutes."

His prophecy was correct. Even while they were watching, the shell of one broke, and a decidedly nasty, wormy-looking worm started to sprawl over the floor of the incubator. The three looked at it. Once out of the shell, it was over a foot long and several inches in diameter. Doctor Rock rushed for one of her drawings and compared it carefully with the liberated worm. At last she looked up.

"This is very similar to a young silk-worm!" she exclaimed. "It has some points of difference, which makes me certain that it is not the worm of Bombyx mori, but it is in the same family. If this is a worm just hatched, what would the larva be like, or the moth? What do you suppose is the matter with the other egg, Mr. Jones? Why should it be late hatching?"

"I do not know, Doctor Rock. I think that it is the same kind of an egg. Perhaps it is not. Suppose we wait and see?"

Two hours later the second egg hatched, and there was no doubt that this worm was different. The three studied it carefully.

"Is this the male?" asked the entomologist.

"I doubt it," was the reply of the ex-soldier. "I have something in my mind, but why worry you with it? Suppose we take them out to one of the mulberry trees and turn them loose? You will have O'Malley guard them a few days. After that, he will need some help."

"I suppose they will eat a good deal?"

"Certainly. Later on they will eat a tree, limbs and all, but just for a few days they will only eat the leaves. Perhaps it would be better to have the young branches cut and brought to them. It would keep them more contented and satisfied. They do not know much, but in a week or so it is a wise thing to keep them satisfied, and there are some other things I want to advise you about, but I will do so when the proper time comes. Suppose we carry them out by that clump of mulberry trees by the side of the lake, and you can arrange at once for someone to watch them? I notice you have deer come to the lake to drink. It wouldn't do to have these worms stepped on. They are tender now, but you need not worry about that, for they will get tough soon enough. Yes, Madam, some of those worms I saw in Borneo were real tough."

So the two worms were carried out to the shore of the lake and mulberry leaves were placed on the ground in front of them. The worms started to eat at once. The small one ate rapidly, but the large one was not overly pleased with the food.

"They are going to eat a lot of leaves?" said Helen Brown.

Timothy Jones looked around the forest, and then down at the worms before he replied to Miss Brown's implied question.

"I think that there will be lots for them to eat, and all I hope is that they will not want to eat anything else but leaves. Doctor Rock, you have these worms watched carefully and I will come up every day and look at them with you and give you any help that you need. Now I will have to go back to my store. That little Ford car is certainly helpful in my business. Are you going back with me, Miss Brown, or are you staying?"

"I think that I will stay, Mr. Jones. I do not want to interfere with your business, and I am afraid that your regular customers would not like it if you were seen riding around with a lady."

"Oh! They would not mind it. Several of them have been out with me in the evening after I close the shop. We study the sunset and they say that it helps them decide the right shade for their hose."

"Oh! They do, do they?" and that was the end of the conversation.

It was a puzzled Irishman who was left in charge of the two worms under the mulberry trees.

CHAPTER IV

The Worms Grow

DOCTOR ROCK realized that the work of guarding the worms would be tiresome; so she at once arranged for a division of that labor. She relieved O'Malley four hours a day, and secured the service of two more Irishmen for night duty. Electric lights were strung, so that the worms could be carefully inspected in an emergency during the night, but the nocturnal guards were told to use nothing but a flash light under any circumstances.

For three days the two worms ate constantly. One ate as though enjoying the leaves, the other, as though driven by hunger. They both grew, but the one with the better appetite gained in size more rapidly. On the fourth day one was nearly three feet long, while the other was a few inches less. These four days passed without any particular occurrence of interest. On the fifth day both stopped eating. Jones, when informed of this over the telephone, said that they were probably preparing for their first molt. Doctor Rock had lost sight of the fact that their behavior would be the same

as that of the commercial silkworm, and she needed this statement from the adventurer to bring her sharply to the consciousness that she had on her hands two silkworms and nothing more; of course, they were enormous worms, but the probability was that their life history would be similar in every way to that of the *Bombyx*, which she had studied by the thousands.

She went to bed on the evening of the fifth day, determined to get up early and watch the worms shed their skins. However, she was called early in the morning, about two o'clock, by one of the night watchmen.

She stood at the landing at the top of the stairs and he called up from the foot. There was no doubt that he was excited.

"Doctor Rock. You had better come down right away. One of those things has gone into the lake."

"Into the lake?"

"Yes. We were eating our lunch and that one that does not eat very well, he started in to be restless, and Bill said to me, 'Let him walk around a while, he needs the exercise.' And then the first thing we knew he headed for the lake and we tried to catch him and he knocked Bill over and bit him on the arm and went right on into the water!"

"How about the other one?"

"That one is all right. The hide is cracking over the back and I guess she is going to shed by daylight. Just like a rattler; seems to twist a little, but stays right in one place."

"What time is it?"

"A little after two."

"Tell Bill to come up here and I will tend to the wound. You stay with the other worm and if you let that one go into the lake, I guess I will have to make you swim in after it."

By the time the doctor had dressed, Bill was waiting to have his arm treated. There was no doubt that he had been bitten, and it was not a mosquito bite, either. A piece of skin and muscle, nearly one inch in diameter had been cut out of his arm as neatly as it could have been done with a knife. The retired physician sewed the wound, put in drainage and bandaged it. She was not afraid of ordinary infection, but she did feel that there was a danger of poisoning. In fact, she was just afraid without knowing why.

The morning came at last. A little cold, foggy, and raw. Doctor Rock joined O'Malley and the two night watchmen on the edge of the lake. The worm was just finishing the shedding of its former skin, now made useless by its rapid growth. It looked very much as it did before, only larger, and not really larger; it just looked as though it could grow larger. A heavy fog hung over the lake and beneath that fog, under that watery surface the other worm was living. The entomologist hoped that it was dead, or that it would come out and behave itself as did the one on land, but all the time she was afraid that it was very much alive.

Telling O'Malley that from now on she was going to have an extra guard to share the responsibility of the day watch with him, and assuring Bill that his arm would soon heal, the worried doctor walked back to the cabin to eat her breakfast. Under ordinary circumstances she would have given anything for a good long talk with Helen Brown, but there were some matters to be gone over that she felt would not be thoroughly understood by her friend. Helen Brown knew her botany, she loved flowers, she could make anything grow, even the *Heleborus Niger* under the snow, but she did not care at all for the insect world, and had expressed herself in a most decided manner as to just what she would do with those worms if she could have her own way. The breakfast was not much of a success; in fact, it would have been a total failure had not the hosiery salesman just happened to come on his daily visit at that time. The doctor welcomed him as she would have a long lost friend and insisted that he stay and have breakfast with her. He consented, and the grapefruit had hardly been served when she told him her troubles.

"One of those worms went into the lake last night, Mr. Jones."

"Is that so?"

"That is so. And he not only went into the lake but he bit Bill on the arm when the night men tried to stop him."

"I was afraid of that."

"Afraid of what?"

"That he would go into the lake. You see, it is this way—but suppose you let me finish my breakfast and then talk? I have been up a long time."

"Doing what?"

"Swimming. That lady that buys so many things from me—you know I told you and Miss Brown about her—well, she wants to go in swimming early in the mornings and so I have to go with her. She says that it is better to go in the morning—not so many people around."

The rest of the meal was passed in silence. At last the appetite of the early swimmer was satisfied, and he announced that he was ready to talk. They walked into the library and sat down in front of the open fire.

"Before we talk about worms," said the doctor, "let's talk about the lady. Who is she and what is she and is she good looking?"

"She is good looking," was the answer. "Though I am not as much of a judge of female beauty as I used to be of butter substitute or the freshness of pig's liver, I think that we can say almost positively that she is good looking. Have you seen the ladies swim nowadays? I used to see them in the Pacific and there is not much difference in the amount of clothes they wear. Now to business. This man in Borneo kept his eggs on long shelves like a wareroom has. He only used the largest and the best eggs. But he grew other things besides silkworms and I had an idea that sometimes he got the eggs mixed. The night I escaped I went into that storeroom in the dark and picked out two eggs, and I could have sworn that they were eggs of the silkworm but I know now that I made a mistake. One was a silkworm and the other was something else. I was afraid of that when I saw the way he nibbled at the mulberry leaves. He ate them to keep alive and not because he liked them. I suppose that he stood it as long as he could and then he made a rush for the water. That is going to be his home for a while. You need not worry about him for a few weeks, though I guess he will eat all the plants and most of the fishes and turtles in the lake. When he gets bigger, I think it would be a good thing to buy some old horses and cut them up for him. When he is bigger, he is very fond of fresh meat."

"Then he was not a silkworm after all?"

"No. And that is the bad part of all this affair. The old German really went to Borneo to grow silkworms. He wanted to grow better and bigger and healthier worms. He did that and then he started to experiment, and when a man starts to do that with nature, trouble begins. He was more successful with his experiments than I like to think, and after the War he must have gone insane. No really sane man would have had the dreams and made the plans he made."

"Do you know the name of the mature insects that will grow from that thing in the lake, Mr. Jones?"

"No. I am not a scientist. Up to the time of the war I was just a salesman in an A and P grocery store——"

The doctor interrupted him.

"If you say that again, I am going to scream. My nerves are frayed as it is. What do I care about your being a clerk in a grocery store! Listen to me!! What kind of a thing grew out of those other eggs? When it came out of the water, what was it like?"

The ex-soldier looked at the worried woman very kindly indeed.

"Now, listen, doctor. You have enough to worry about besides thinking about that worm in the lake. If I told you all I knew, you would think that I was a liar. Sometimes you believe me and sometimes you don't. That is why I am not going to tell you who went swimming with me this morning. You ladies are all right in a way, but you worry too much about little details. That was one reason why I wanted to stop selling groceries. Take tomatoes, for example. One woman would come in and wonder if they were fresh and she would poke one with her finger, and then another one would come in and poke one, and by the time they had been thoroughly poked, they were not fit for anyone to eat. Why couldn't those women have taken my word for it? This business of selling hose is far different. If I tell a heliophile that a certain shade just matches her tan, she believes me."

"So you refuse to tell me?"

"Just for now."

"Suppose I go elsewhere for advice?"

"I wouldn't. Suppose this gets into the newspapers. How would it be to have a lot of reporters around? Suppose they write up a wild article about enormous insects at the Gap?"

"Well, what of it?"

"It would either kill the business or ruin it with crowds. The buses would run Saturday excursions and so would the railroads. It would be a mess. No! The less we say about this the better. We have a nice quiet place to raise these things, and so far we are able to keep the help from talking. I do not want any publicity—at least, not now. I am afraid of a good many parts of this experiment, but I am especially afraid of this man from Borneo."

"But what am I going to do?"

"Raise that one worm. Get all of the pleasure and happiness out of it you can. You are a scientist. Make lots of notes. Take pictures and measurements and when it is all done with, you will be able to write a very interesting book. That silkworm is just as harmless as a kitten. You will be thrilled when you see how it turns out. The thing in the lake is different. I am glad he went there of his own accord. I was watching him carefully, and if he had not gone, we would have had to kill him. They are dangerous. Well, I guess I will have to be going. That lady will be wondering why my store is closed. She is a hard one on stockings, and at times I think that she is purchasing agent for some fashionable orphanage of some kind. Did I tell you that I had to hire a girl to help me run the store? I am learning to play golf and it takes my time. But I don't have to pay for the teaching. Seems the ladies around here are kind to a lonely man. Did you burn out that hole in Bill's arm? Better wash it out with permanganate of potash. Goodbye. If you happen to see Miss Brown, tell her to drop in some afternoon at three and have tea with me. She will meet a lot of fine ladies there.

"The place is gradually becoming the social center of the town."

The scientist followed him out to his Ford car.

Just as he was ready to start, she said, "Mr. Jones, how large is this silkworm going to be when it stops growing?"

"Right large, Madam. Yes, they get right large," was the reply.

CHAPTER V

The Butterfly Horde

MR. STERLING POWERS, retired broker, was lazily smoking at his desk. He had private offices on the twentieth floor of a fifty-story building. Here, as he had no business, he played.

The game that he played at was butterflies. He was writing a book on the butterflies of New York City. He ran a permanent advertisement in several daily newspapers, offering nominal sums for any butterfly captured within the metropolitan limits and brought to him in a satisfactory condition. He did not understand how so frail a thing as a butterfly could exist in the great beehive of industry, but there they were, and he found great pleasure in studying them. Every newsboy knew about him, and practically every taxi-man. He paid from one to ten cents for duplicates of his collection and as high as twenty-five dollars for novelties.

It was the middle of April, and the buying of butterflies had just begun. Powers knew, from past experience, that the first few warm days of spring would bring lots of dirty-face boys to his office, ladened with tin cans and pasteboard boxes. Under ordinary circumstances the owners of the building would have cancelled his lease. As he owned the building, he could entertain whom he pleased. In addition to the money, the boys received candy and the older men cigars. He not only secured butterflies, but also a lot of data of human interest. He had been a philanthropist for years and now, after talking to hundreds of the common people, he was on the verge of becoming a sociologist.

This special morning one of his regular customers came rushing into the office. Mikey, the Rat, was only eleven, but in those few years he had secured a wide experience with life in general. Powers wanted to take the Rat and make a man out of him, but so far the little waif had fought shy of any suggestion curtailing his liberty. This morning he lugged in a hat box.

"Gee, Mr. Powers. Put some dope in here and kill this bird before he breaks his wings."

"Is it worth anything?" said the butterfly buyer, as he reached for his cyanide bottle.

"It ought to be. Gosh! It's big, Mr. Powers. It's bigger than a bird."

And it was bigger than some birds. The man waited for the butterfly to die and then cautiously opened the box, took out the *Lepidopter* and slowly fastened it to a cork base and spread out the wings. Then he scratched his head, went to his bookcase and started to read. The passing minutes made the Rat restless. He went over and pulled at the man's sleeve.

"Ain't it worth anything, Mr. Powers?"

The man rubbed the boy's head.

"It certainly is, Mikey, but this moth never grew in New York City. This is a very fine specimen of the *Anosia Archippus*, or at least similar to it. That is the closest I could come to it. Perhaps it is a moth and then again it may be a butterfly, but we don't care which it is, do we, Mikey, old chap? All we know and care about is that it is rather pretty. How's finances? Have you paid your board bill for the month? Here is a ten dollar bill. If you see any more, bring them in and tell the boys that they are worth fifty cents apiece for the first dozen."

Mikey thanked him and rushed out. In the next few hours other boys and men came bringing the same kind of *lepidoptera*. It seemed as though there was a shower of them. Soon Mr. Powers was giving only five cents for them, and then he locked his door. He did not have to buy any more. All he had to do was to open his office window. For they were flying in the air in

abundance. At times he could see ten or twelve outside of his window. It was a rather unusual sight. He determined to take his finds around to the Academy of Natural History and see if he could have them identified.

Once on the street, he saw that the blasé New Yorker was yielding to a new excitement and was catching butterflies. They were in abundance. The canyons of the metropolis were filled with the flying beauties, almost as plentifully as they were filled with papers and confetti the day Lindbergh rode up Fifth Avenue. Many were flying in the air, momentarily free, but hundreds had been captured and destroyed by curious hands, and the pavements were filled with torn fragments of dead and dying insects that but a little before had floated in iridescent beauty in the April sun.

At the Academy, Powers found that he was but one of several excited entomologists who had rushed there for information. They were gathered around the man in America who knew more about insects than anyone in the world, except his teacher, the great Lubeck, of Vienna. The Master was speaking, and though he knew Mr. Powers well, he gave no sign that he was aware of his presence.

"What we are witnessing, gentlemen, is nothing new in the scientific world, though it is, no doubt, most unusual in a large city like New York. Here are the facts. H. W. Bates reported that one day in South America he saw an enormous number of butterflies, all males, and over eighty different varieties. Sir Emerson Tennant, in Ceylon, saw some white and yellow butterflies, who were evidently migrating. He said that there were so many that they darkened the sun and took many days to pass over his station. Were there millions? Nonsense! Such a horde was composed of billions. He did not know where they came from or where they were going. They were all of the same kind. Darwin saw a butterfly shower that was so thick that even with a telescope he could not see a spot that was not filled with them. Gatke states that migrating moths travel under the same conditions as migrating birds, and often in their company, usually in an east to west direction, in numbers that exceed all ability to even estimate them, but always in the millions. Tutt says that the *Deiopeia Pulchella* has been seen one thousand miles from its usual habitat and at least that far from land. This variety that has selected New York City for its objective is a new variety. To my knowledge it has never been described. I feel that we should determine where it came from and why. Perhaps the where is easier to answer than the why."

THE discussion that followed the short lecture of Abraham Packard was interesting but so technical that it would be useless to record it. When it was over and the various scientists had returned to their homes, not one of the questions raised had been answered. All that anyone was sure of was the fact that a most unusual migration of *Lepidoptera* was taking place. Sterling Powers stood for a moment on the steps of the Academy. The shower of butterflies was continuing. In fact, it was growing denser. The automobiles were moving with the greatest difficulty on streets, slippery with the crushed bodies of millions of insects. Pedestrians were walking carefully, partly from the dread of stepping on soft bodies and gorgeous wings of the fallen butterflies. Powers stood thinking.

"This is most unusual," he mused to himself. "How stupid mankind really is. We pride ourselves on being Lords of Creation, but what do we know after all? Practically nothing. We go in circles, on circular tracks, and beyond our little region of intellectual effort we are hopelessly lost. Now, here is a physical wonder, a most remarkable scientific curiosity. Professor Packard knows everything; at least, I thought so, but he said that we had to determine where these insects came from and why? Did he answer his question? Not at all. And the reason he did not was because he could not. Perhaps back of it all is an answer. These pitiful beauties are obeying some urge of nature. Shall I say a Divine command? If so, what a waste of beauty! Each one lovely as a sunset in autumn, with colorature that would make an Asiatic harem faint from sheer delight, and yet how wasted and unappreciated here in New York City! Already they are an obstruction to the traffic. Tomorrow's papers will tell how much this has cost and time lost, accidents, additional laborers. How many will see the pity of it, the useless expenditure of beauty, where beauty is not wanted! In a thousand so-called city homes these little things are dying, impaled by pins on a Lears and Lowbuck catalogue, or pressed between the pages of the family Bible, for the first time opened in twenty years to sacrifice the life of a little thing that has never known what sin is. They are being crushed beneath the wheels of rum runners, taxicabs and stately chariots of the rich. Shop girls, factory workers, messenger boys, workers and idlers, rich, poor and plain folks, chorines and waitresses will soon be crushing them beneath low heels and high, and wondering whyenell the city does not clean the streets."

Even as he was talking to himself Professor Packard was dictating a statement to a reporter from the New York Times. This article, which appeared the next morning, said in part:

> "Nothing happens by chance in the world of nature. There is a reason for everything. All natural occurrences are the result of some natural law. The flight of an unknown species of *Lepidoptera* or butterfly, which has taken place in the city, is unusual for this locality but is no novelty to science. The migration of life, the simultaneous determination of a certain species to move to another home, is one of the earliest historical novelties known to man. (Here followed a detailed account of some of the great human migratory movements and their supposed cause.)
>
> "Today animals, like the caribou, migrate; birds migrate, often thousands of miles, separating their summer and winter homes. Fish, like the salmon, go enormous distances to their spawning streams. The eel has a journey that nearly takes it around the world.
>
> "This appearance of millions of butterflies is but one of the migratory movements that takes place all around us. The reason we are specially interested is because it has caused so much annoyance to millions of human beings at the same time.
>
> "The interesting point in regard to this phenomenon of nature is that practically one hundred per cent of the butterflies are males. Are they seeking the female of the specie? That often happens. One female of the *Endromidae*, imprisoned in a wire cage on top of a building in Washington, has been known to attract males from Philadelphia. It may be that something like this is the secret behind the appearance of our unusual visitors."

This last paragraph from the article of the scientist was not intended to be humorous. He wrote it with no idea of comedy. Yet it was at once seized upon by the columnists and gag writers of a city that has to have novelty at any price. At once a girly-whirly show put on a butterfly dance, in which dozens of winged males whirled madly around the feminine butterfly in the wire cage. One girl, meeting another on the street, would ask, "How many butterflies have you on your string?" or, "I have a new butterfly. He is going to give me a pearl necklace before he burns his foolish wings in the flame of my candle."

The insect shower lasted for two days and then came to an ending as sudden as the beginning. For two more days New York talked about the unusual happening and then turned to another novelty. The sacrifice floated

down the sewers of the city or started to turn to dust in forgotten places. Everything was as it had been and the city was looking for something else to talk about—and suddenly it found it.

It was a paid advertisement in one of the picture papers. A full page was taken, and while it was a startling news item, still there was no attempt made to feature it by the use of large type. In fact, the type was small and the margins so wide that it attracted attention by the unusualness of the page appearance as much as by the context. The paper on its editorial page commented on this paid advertisement and assumed no responsibility. The management simply stated that the space in the paper was for sale and that anything was printed so long as it conformed to certain requirements. Every reader was privileged to form his own conclusion as to what the paragraph meant. And this was the paragraph:

> "I was directly responsible for the recent appearance of the millions of butterflies in New York City. This is but a mild manifestation of my power over the insect world. I demand the abolition of capital and the freedom of the worker. A new government must be formed in the United States first, and then all over the world, a government in which all are equal. I also demand the apprehension and punishment of the American who stole from me two eggs and the immediate return of those eggs. Unless all this is promptly attended to, I will send another shower of insects, in number and size sufficient to destroy the city. I would advise the immediate return of the eggs and a revision of the form of government. For all this I will wait till January first, of the next year."

This reading notice attracted the attention of many different persons in many different walks of life. The Governmental leaders were sure that it was the work of an insane person. When Professor Packard was asked for an opinion, he simply stated that up to the present time there was no scientific proof that such a migration of butterflies could be the work of a human being, and though under very extraordinary circumstances it might be accomplished deliberately, he was of the opinion that a crank was simply trying to gain the credit for something with which he was in no way responsible. Alienists were convinced that the paragraph was the work of a paranoic who was deteriorating. Otherwise, why should he be so concerned over the theft of two eggs?

During these days Doctor Rock, as was her normal habit, carefully read the New York papers. Whatever conclusions she reached were carefully kept from the entire world, including Miss Helen Brown and Timothy Jones. That worthy made his daily trip to the Lake of the Mountain to confer with the doctor in regard to the rapidly growing worm. Perhaps he read the papers and perhaps he did not. At least, he did not mention the paragraph in regard to the arrest of a certain thief and the return of two eggs. During this period the worm had rested one day and then once again shed its skin. It was now seven feet long, a perfect caterpillar in every way only of a size that made everyone, even the doctor, wonder what the end would be. This worm ate not only mulberry leaves but also the branches. It was most interesting to see it slowly and successfully masticate a limb two inches in diameter. In spite of its size and rapidly increasing strength, it had a calm and placid disposition. So long as it had enough food it was content to stay in one place. O'Malley became attached to the strange thing and called it Peter. He said that this was appropriate because it was such a pumpkin eater. He would play to it in the afternoons on his jew's-harp, and insisted that it enjoyed and appreciated his music—much more than his wife did.

Except for a constant disturbance of the fish in the Lake of the Mountain, as shown by their everlasting leaping out of the water, there was no definite sign of the worm which had sought a watery home. The doctor finally yielded to the advice of the ex-soldier, and every day from fifty to one hundred pounds of meat was cut up and thrown into the lake. The doctor wanted to row out and see if she could see the worm eating, but Jones begged her not to.

"It is too dangerous, Madam," he said.

"But, why?"

"You would not believe me if I told you."

"Mr. Jones," she replied, "I believe you a little more than I did."

CHAPTER VI

The Perfumed Path

A FEW months before, a stranger had landed at a lonely seaport of British Guiana and had, without the loss of a day's time, gone into the interior. Here, in some mysterious way, he had secured the services of a tribe of natives. There was no doubt he paid them well. For days they roamed over the surrounding territory, carefully hunting for a certain type of cocoon. In the meantime the stranger had built a cage, four feet in size each way, out of fine copper wire. He also brought to the native village, and assembled there, an airplane that was the last word in modern construction.

In his laboratory, crudely constructed and yet admirably suited to his needs, he labored day and night with chemicals. At last he obtained a combination that pleased him. Once the formula was obtained he made many gallons of the peculiar scented liquid and stored it in a tank of the airplane. The construction of this tank and its outlet was such, that when the plane was in motion, a few drops were thrown in a fine vapor every few seconds. In fact, it was nothing but a gigantic atomizer. On the tail of the plane he securely lashed the four-foot wire cage.

It was springtime in the tropics. That meant something different from springtime in the colder zones. Still, it was a season of renewed life, the birth of another generation. Birds were laying, so were turtles and alligators and snakes. Flowers were blooming with renewed vigor. Here and there gorgeous butterflies flew their short life through the sunshine. The stranger carefully selected a hundred of the cocoons that the natives had so painfully gathered and started to incubate them. By supplying them with artificial heat, he was able to gain a day or two on those that depended on nature for their incubation. His skill was shown by the fact that these hundred cocoons supplied over seventy females. These he carefully placed in his wire cage.

He was now ready for the termination of his experiment. He was doing something that had never been done before; something that had not even been thought of before. He was about to replace God in the economy of nature. He was going to force the duplication of one of the most remarkable phenomena that had ever been observed by man. For centuries the butterfly had migrated for reasons unknown and unguessed by mankind. Now one of the human race was going to lead millions of these butterflies on a peculiar Odyssey, which would end in their total destruction. That final debacle did not worry the man, however. All that he was striving for was a very definite psychological effect on a great nation and finally on an entire world.

He had given the native tribe the final payment of cheap jewelry. He had the seventy new females in

their wire cage. His tanks were full of gasoline and the special perfume. Then he started on his journey to New York. But first he flew in a large circle that covered parts of all of the Guianas, French, Dutch and British. He flew slowly and as closely to the top of the forest as he could with safety. As he flew, the atomizer sprayed the perfume in an extremely delicate flood behind the plane. And as the plane sailed over the forest, the appeal of that perfume, combined with that thrown off by the seventy captive females, inflamed the imagination of millions of male butterflies just emerging from their cocoons. Thus it was that when the airplane finally left the flight over the forest and started north over the ocean, it was followed by a constantly enlarging stream of amorous males.

The man had done one thing. He had started a migration northward. He had manufactured a perfumed path, along which thousands of one particular kind of *Lepidoptera* were flying gaily to their deaths. He hoped that their leaving South America would induce others to leave out of a desire to imitate or a thirst of curiosity. Perhaps in the primary stream there would be sufficient females to perpetuate the migratory current.

Arriving at a flying field in New York, he established headquarters in a centrally located hotel. There in the privacy of his room, he transferred into individual cages the females who had survived the journey. He gave them each an opportunity to feed on sugar water and then he engaged hotel rooms in different parts of the city—as many rooms as he had living females, and on the window of each room he placed a small wire cage. He took the remaining perfume from the tank in his airplane and sprayed each window sill. He did all this as rapidly as possible, because he knew that the advance guard of lovesick males was on its way. He had hardly placed the alluring bait before the first wave of butterflies arrived, and in a few days he had the satisfaction of knowing that he had made a thorough success of his undertaking. He had brought the butterflies to New York.

But he had done more than that. He had made a great city conscious of the fact that there was such a thing as a butterfly. He had psychically prepared them for the next step in his carefully prepared plan. Paranoidal he might be, but he certainly had no lack of brains, and the entire history of his thirty-year adventure in the field of experimental entomology showed conclusively that Johnkin Peters might have taken his place among the Masters of Science had he only been able to control his soul as well as his intellect.

Thirty years before he had gone to Borneo to solve the secret of the production of a perfect grade of silk. It may have been the isolation, the constant separation from the rest of the white race, the tropical sun, the brooding introvertive silence; it may have been all these or none or perhaps heredity or an unfortunate love affair. Whatever it was, he was led into the paths of magic and uncanny working with the mysteries of nature. In his longing to become more of a God, he had become more of a Devil.

During all these years in Borneo he had employed many white men, and all had died when they became either useless or dangerous to the final success of his plans. At least, all had died save one, and that one had escaped. He had not only escaped, but he had taken with him, in his mad flight through the Borneo jungles, two eggs. The escape was not so bad. Johnkin Peters knew that not one hundredth of his tale would be given credit. Many men had gone into the waste places of the earth and been called liars when they started to tell what they had seen and heard during their wanderings. But the theft of the eggs was a hard blow. They could be hatched. The man could tell his story and be called a liar, but when the eggs hatched, men would

There it clung, breathing heavily and trying to stretch its wings

be forced to believe him. He had traced the thief to North America and there the trail became cold, hopeless.

Before this he had always promised himself that he would wait for the psychological moment before he would throw his final gesture at the laughing world. Now he felt that the time had come and he treated New York to a miraculous display of living pyrotechnics. After that he placed his advertising paragraph in the paper. Let them catch the thief! They would have to return the eggs. The nation was responsible for the action of one of its citizens. Now was the time for the establishment of an ideal state. Let them make it any way they wanted to, if only they made all men equal!

He put the paragraph in the paper and waited. Instead of reforming over night, the nation noticed, laughed and forgot. For a day or two the popular gag was over eggs; then something else took the forefront of national attention. Peters had thought to make a new nation for eternity; all that he accomplished was to make a nation laugh for a few days. Instead of recovering his two stolen eggs, he lost several months of life working in South America. He had made millions of insects follow him, but he could not secure the support or even the curiosity of a single American.

Furious, he returned to Borneo and prepared for the final step.

CHAPTER VII

The Cocoon

ON the fifteenth day after the worm had crawled out of its egg, it moulted for the third time. It was now fifteen feet long, and had an appetite in proportion to its size.

Doctor Rock and Timothy Jones went to see it the day after it had its new skin. In order to save the appearance of the lake front, the doctor now had mulberry trees cut down in the back forests and the limbs hauled to the insatiable worm. O'Malley was almost tender in his constant care of the creature and seemed to possess some kind of a psychic influence over it. At least, he talked to it as though it were a child, and to a certain extent it seemed to understand and react to the conversation.

Neither of the chief actors in this drama had so far mentioned the peculiar happenings of the last two weeks in New York. Whatever they thought, they had very cleverly concealed from each other. Both had made secret and rapid trips to New York during this period. There seemed to be a deliberate motive back of this desire to avoid the discussion of the serious problems that were rapidly approaching a point at which they would have to be solved. The doctor spent much of her time in study and thought. Jones played around Shawnee, made his daily trip to the cabin on the Lake of the Mountain and the rest of the time sold hosiery and wrote. He told the two ladies that he was writing an autobiography.

"And when it is finished," he said, "I may have it published. It is going to be most interesting. Three periods, one in the A and P, the next in the A.E.F. and the third a vagabond around the world. I am going to devote particular attention to these delightful weeks at Shawnee. In all my experiences, I have never met more beautiful ladies than these Shawnee ladies."

"You mean the New York and Philadelphia ladies you are meeting at Shawnee," interrupted Miss Brown, rather acidly.

More days passed slowly. At least, they seemed to pass slowly for the anxious doctor. And now the time came for the final moult. The worm was twenty-three days old and when it cast its skin for the fourth time it emerged, a full-grown caterpillar. In appearance it was very similar to the larva of the *Bombyx mori*, except that instead of being three inches long, it was over thirty-five feet. It was hairless, ashy gray in color and rather slender for its length. The second thoracic ring was humped, and there was a spine-like horn, or protuberance at the tail. It remained quiet so long as its hunger was satisfied; when hungry, it often reared fifteen feet in the air and waved its head around in the quest for food.

In another week it ceased to eat. Jones had warned the doctor about this symptom. A stout pole had been placed in the ground near the feeding place of the worm. This stick of timber, fifty feet high with a few branches left on it, was to provide a place for the larva to spin its cocoon. With almost human understanding, it showed its appreciation of this arrangement and one week after the last moult, began to climb this tree. The piece of timber was just tall enough for the caterpillar to reach the top before it started to spin. It began to eject from its silk glands, not a microscopic thread that would rival that of a spider, but rather a thick cord, almost the size of wrapping string. Jones visited it and assured the doctor that everything was progressing normally. As far as the doctor could determine, the progress of cocoon-making was the same as she had observed hundreds of times in her laboratory on a small scale. For three days the larva kept its head going in rhythmic routine movements and at the end of that time it was enclosed in a cocoon, seventeen feet long and over ten feet in diameter. A final inspection was made, and then Doctor Rock and Jones adjourned to the library for one of their regular conferences.

"How do you feel about everything, Mr. Jones?" asked Doctor Rock, rather casually and at the same time with a good deal of anxiety in her voice. The last month had been a hard one for the retired doctor.

"I guess it is working out all right," was the ex-service man's reply. "I think that we are going to obtain a living butterfly. Whether it will be male or female I cannot say and I do not know that it makes any difference, because it will not have a mate either way. Even if both of those eggs had been silkworm eggs, they might have been of the same sex. Anyway, you will see one beautiful moth. If you donate it to some museum, I guess they will be proud to call it after you. That is a habit they have when a new kind of bug is found. Even that German wanted to name one after me, but I had an idea that it was to be a memorial to a dead man, so I refused the honor. The A and P did name a cereal after me. There was a contest, Madam, between the different stores to see which one could sell the most butter substitute and I won, and so they started to sell Jones' Johnnycakes, and for a time my picture was on the package. For a time I thought that it was an honor, but during the war I found that life had greater things in it for me, and so it had. There was a year that I reigned as King on one of the Solomon Islands, but I found that they changed kings frequently and ate the old ones, so I lost interest and left. I guess my twenty-seven wives are still wailing over me—nice girls they were—but a little dark. Would seem all right now. Women are funny. Millions of dark ones spending their money on bleaching powder to turn white and millions of white ones spending their money to secure tan, artificial or otherwise.

"How about the one you go in swimming with?"

"She is real nice. She says that she likes the idea of my being an A and P clerk once in my life. Makes me human."

"How long before the moth will come out?"

"In about two weeks. Maybe a day or so more or less. Now, let us be serious. You have a big problem on your hands, Doctor Rock, in regard to that thing in the lake. Are you feeding it enough?"

"I should think so. Two hundred pounds of fresh horse meat every day. How about it?"

"That ought to be enough. We won't have to worry about it for another week or so. I think that you will have a quiet week. Take my advice. Put O'Malley back at the gate. Dismiss the other guards, give them a bonus and tell them that you will make it more for every month they keep their mouths shut about the happenings here. Take Miss Brown and go on a little trip and just forget that there ever were two eggs. Come back in nine days, and then you will be rested up and ready for work. If you have a chance, see someone in New York and find out how to kill a moth with a fifteen-foot body without spoiling it or breaking its wings. I will come up here every day and go over things with O'Malley. How about it? It seems to be the thing to do. If you do not take care of yourself, you will be sick. How would it be for you to get one of those household moving-picture cameras and then when the moth comes out you can take some pictures? It is a wonderful sight, Madam, to see one come out all wet and shrunken and gradually dry and grow in the sunshine. If you took a trip like that, it would be a nice thing for Miss Brown. That poor girl is jealous, and this last month has not been a pleasant one for her. She needs a change as much as you do."

"I will do that," replied the doctor. "As you suggest, I have a lot of things to attend to. I will go to New York and take Helen with me. Can I do anything for you there?"

"Yes. Suppose you go and see some bug expert and find out how he reacted to those butterflies in New York? Did you read about them? You did? Well, you never said anything about it. If you read about them, perhaps you saw this in one of the papers?"

He handed her a page of a small, illustrated New York paper. She glanced at it, then handed it back.

"I saw that, too," she commented.

"You did? And all the time I thought that women could not keep quiet. Let me tell you something. When those butterflies came to New York, I was hoping that it was just a coincidence. Then when I read this little paragraph about the thief and the two eggs and making over the Government, I knew that it was all the doings of the man from Borneo. He was here. Right here in New York, hunting for me. He knew that I had the eggs. If he had the eggs, his secret was safe. If I was dead, he was safe. For a while I was frightened. I am not afraid of any right-minded man, Madam, but this man from Borneo is different. He may be in New York now, but I do not think so. But I do know, *that hell is going to pop open* on or about the first of next January. Unless someone tied down the lid, Doctor Rock. However, it is early in the year and there is lots of time. You go on your vacation and have a good time, and if you can find out anything that will help us, look into it. I am going to try and rest a bit myself. I have been so busy swimming and playing golf that I have not put the time into my business that I should. Worries me sometimes."

The next evening the two ladies landed in New York and registered at the new Astor. As they were undressing, the doctor looked at her friend curiously. She remarked, "My word, Helen, but you are certainly tanned."

"I guess I am, Anna," was the reply. "I have done more swimming and golfing in the last month than I have ever done before."

CHAPTER VIII

The Specialists Consult

THE first day in New York the ladies went shopping. The second day Doctor Rock asked her friend to excuse her, as she was going to spend the day seeing some of her old friends in the medical profession. Consequently, Helen Brown headed for the Metropolitan Museum, while the doctor, instead of calling on a physician, went to see Sterling Powers. She knew of this man by reputation; she had read his various articles on *Lepidoptera* of New York City; she knew that he was a retired broker and wealthy. For these reasons she wanted to consult with him concerning the events of the past month.

She had no trouble in being admitted to the office of the retired magnate. In a way, her admission was due to a mistake. She spoke in such a way as to make the office girl think that she was there to sell butterflies, and that was the statement that the said office girl had given to Mr. Powers. He looked up pleasantly enough and said, "Got something good to sell me?"

The middle-aged woman smiled.

"I certainly have," she retorted. "I have something that you never saw before, but it is not for sale, at least, not now. I am Doctor Rock, Doctor Anna Rock, late practicing physician and surgeon in Brooklyn, but now retired and devoting my leisure to the study of silkworms. You can look me up in "Who's Who" or Dunn and Bradstreet. A month ago I ran against something big. I thought that I could handle it myself, but it seems to be too big for me. I need help, advice; that's why I am here."

Sterling Powers was primarily a gentleman and after that a scientist. He lost no time in assuring the visitor that his time and talents were at her service. They sat down, one of them on one side of the desk, and the other in an arm chair at one end. Doctor Rock unwrapped a number of pictures and placed them in two piles on top of the desk in front of the lover of butterflies. Then she started to tell her story:

"Over a month ago, Mr. Powers, I was fortunate enough to be able to purchase two eggs. I incubated those eggs and they have hatched. I took pictures of the worms at regular intervals. One of the worms went into my lake and from that time I was only able to take pictures of one of them. Finally, that one spun a cocoon and I am now waiting for the pupa to emerge as a moth. These pictures are in chronological series, numbered one to fifty. You will observe that in every picture I placed some familiar object near the egg or the worm so that the relative size of them could be more easily determined. I want you to look at these pictures and tell me what you think of them. In the meantime, I will glance over the morning paper. Take your time. You never saw a series of pictures like that before and the chances are that you never will see another set."

Without an audible answer, Powers started to look at the pictures. They were large, seven by twelve inches in size. First, he looked at them hastily and then, starting all over again, he spent long minutes over each, till finally it was eleven A. M. At last he placed them all on a pile and started to wrap them up. The doctor put down her paper and looked at him.

"Well?" she interrogated.

"Doctor Rock," said the entomologist gravely. "You are a very clever photographer. There is only one question I want to ask you. Why, when you are capable of such great things, do you stoop to such chicanery?"

"In other words, you think that I am a liar?"

"That is a name I have never called a lady."

"Suppose I asked you to come and see the cocoon?"

"I would come."

"You would have to. Now, one thing more. No doubt, you know about the butterfly-shower and the peculiar paragraph that appeared in a newspaper after it? Suppose I tell you that these eggs, the ones you have just seen in these photographs, were the two eggs which the writer of that advertisement wanted returned to him? What would you think then?"

Sterling Powers unwrapped the pictures. For another hour he looked at them. Then he took down the telephone and called Professor Packard at the Academy of Natural Sciences——

"Is this Professor Packard? Yes? Well, this is Sterling Powers. Can I come up and see you right away? Important? Certainly. I have something to show you that will make you scratch your head."

He turned to the doctor.

"Packard knows more about bugs than any man in the world except Lubeck of Vienna. I want him to see these pictures. You come with me. He may want to question you. If anyone in the world can tell whether these pictures are faked or not, it is Packard. We will not tell him a word about them—simply hand them to him and ask him for an opinion."

Thirty minutes later the Master was looking at the pictures. He, as Powers had done, took his time. It was two before he even looked at the woman and man seated near him. Then he simply said, "Who took these pictures?"

"I did," answered Doctor Rock.

"You are the person we have been looking for. You have the intelligence and the ability to do what we want. Name your salary. The work will be to make large papier-mâché models of small insects for our museum."

Sterling Powers shook his head knowingly. He had an idea that this would be the decision of the Master.

THE doctor flushed. Thoroughly mad, she took the bundle of pictures and started to wrap them up.

"Those pictures are not faked!" she cried.

"Sit down," he commanded. "In science, two and two make four. Art only can vary. The Greeks made the heads of their statues smaller than normal to secure the proper artistic effect. The scientist has to observe nature as he sees it. You hand me a series of pictures, showing the development of a species of silkworm from the egg to the worm, to the cocoon. The caterpillar, about to spin the cocoon, must be over thirty feet long. I say that no caterpillar ever was that long. Yet, what would I say if I saw that cocoon? The observations of a lifetime would be discarded for a single new fact. I could say that you made the cocoon. Suppose I saw the moth come from it? Ah! You could not fake that. Yet, how great that moth would have to be to retain its relative proportions to the egg and the caterpillar and the cocoon. I am a Christian; yet I would sell my soul to the Devil to place that moth in our Museum. Nowhere else in the whole world would there be such a moth. What a sensation it would create! But the most remarkable part of these pictures is the other worm. What happened to him?"

"He crawled into the lake. At the present time he is eating several hundred pounds of horse meat a day."

The Master jumped from his chair, and almost ran over to the part of the room that the doctor was sitting in. He plead with her:

"Please, lady, tell me that you are lying to me. Assure me that this is all a silly joke. It cannot be true. Oh! God! It must be a dream. For, if these pictures are true; if it really went into the lake and is there now, growing and eating meat, then it is nothing else but the larval form of the dragon fly, known as the *Protodonata*. But this type lived in the Carboniferous age, and we know of them only by fossil remains. They have been found in Commentry, France, and C. Brongniart has given us a wonderful description of them. He sent us some of the fossils. But there is a great gulf between our age and the Carboniferous. We have not thought it possible that any have survived. So please spare an old man and tell me that I am simply dreaming."

But the doctor shook her head. "Those are real pictures, professor."

He looked at her, and wiped the sweat off his face with his hand, and then with his handkerchief.

"What do you think, Mr. Powers?"

"I do not know what to think."

"Nor do I. But I know this: I will not rest day or night. I cannot eat till I see for myself this cocoon, hanging on a fifty-foot piece of timber. Once I see it, I will stay there. Day and night I will stay there till the moth comes out. And I will stay at the edge of the lake you tell me of. If you do not feed me, I will starve, but I will not go from there till I see that thing come out of the lake. And when it comes out, we had better be ready to kill it—real quickly—for it will be hungry."

"I'll tell you what I will do, gentlemen. After a short stay in New York, I am going back to my home. When my adviser thinks that the time has come, I will telephone to you and you can visit me as my guests and make any scientific observations you wish to. How will that suit you?"

"That will be heavenly!" almost shouted the professor. "But who is this adviser you speak of?"

"His name is Timothy Jones."

"I cannot place him. What has he written?"

"Nothing. He used to be a grocery clerk in an A and P store."

"And now he is telling you how to care for these worms?"

"Yes. You see, he was the man who stole the eggs."

"What eggs?"

"The two that were mentioned in that mysterious advertisement."

The professor looked at the retired broker. Then he sighed.

"Here is something big, Mr. Powers. I thought at the time it was all humbug, but perhaps—perhaps—Doctor Rock, will you let me go and see this Timothy Jones person?"

"He is too busy selling stockings to talk to you," was the reply.

Soon after that the conference came to an end. Sterling Powers took Doctor Rock to lunch, during which meal they found that they had more than entomology in common. Arrangements were made for a visit to the Lake of the Mountain when the moth came out of the cocoon. It was dark when the doctor returned to the hotel and rejoined her friend. They argued as to the spending of the evening, but this was all unnecessary. Mr. Powers called on the 'phone. "Would they see a show with him?"

They would and they did.

It was two in the morning when they returned to the hotel. A telegram was waiting for them. It was from Timothy Jones.

"Dr. Anna Rock:
Astor House, New York City.
All quiet here. Nothing new. Am attending to business. Have not golfed or been in swimming since you left.—TIMOTHY JONES."

"That," remarked the former physician, "is one strange man. There are so many things about him that I cannot understand that I feel at a loss to fathom his least movement. Now, why should he stop his sports just because we came to the city? Why should he take the trouble to wire me that he had done so?"

"Perhaps he wants us to know it. It may be that the woman he was with so much has left Shawnee, and this is his way of telling us."

"I think he is some kind of a fool. What were you doing all day, Helen, while I was talking to those men?"

"Buying things for my hope-chest."

"Your hope-chest! A woman like you with a hope-chest! What in the world do you want a hope-chest for?"

"What does any woman want a hope-chest for?" was the sleepy reply.

CHAPTER IX

The Cocoon Breaks

FOURTEEN days after the completion of the cocoon, the inhabitant thereof began to show signs of activity. An interested group of scientists were gathered around the silken ball. Doctor Rock had kept her promise and sent for Sterling Powers and Professor Packard. These two gentlemen had lost no time in making their arrival at the isolated cabin. There had been long hours of anxious waiting, but now that was all over. There was no doubt in the minds of any but that the moth would come from the cocoon.

Conferences had been held with Doctor Rock. Timothy Jones had been closeted with the two New Yorkers, and when they finally emerged, they were convinced that either he was insane or that they were. His rambling talk, his constant reference to past experiences was almost too much for the scientific and accurate mind of the expert from the Academy of Natural Sciences.

The party were seated around the cocoon that afternoon. It was an unusually hot afternoon and the reflection of the sunlight on the clear water was almost unbearable. Doctor Rock had served dinner out on the shore, as she knew that no one would want to go inside while such a remarkable event was nearing completion. She had a slow-motion moving-picture camera which was taking the gradual escape of the moth from the cocoon. Timothy Jones simply sat there and lazily smoked a pipe. Of all those present he seemed the least excited. He had made only one suggestion; that a keg of sugar water be available for the moth's first meal. Obviously, none of the flowers on the mountaintop—none, or for that matter, not all of them, would be sufficient to supply such a moth its meal of nectar. Helen Brown lazily worked on a fine-linen handkerchief.

The moth came out, slowly, but certainly and surely. It was a rather wretched, wet-looking, pitiful creature, uncertain either of its strength, beauty or purpose in the world. Finally, it had pulled its body entirely out of the cocoon and had crawled part of the way up the tree. There it clung, breathing heavily and trying to stretch its wings. Its body was at least fifteen feet long. What the wing expanse would be could not be determined until the wings were thoroughly expanded and dried. It found the keg of sugar water which had been hung up near the top of the piece of timber, and thrusting in its proboscus, drank eagerly.

Professor Packard put his cigarette on a stone, carefully stepped on it and went over to where Doctor Rock was watching the camera.

"My dear Doctor," he exclaimed, "I want to apologize to you for doubting your honesty. What I have seen today is an inexplainable wonder. I cannot understand it and yet I am sure that it must be so. Entomology has gone backward today. We are not in the twentieth century. We are millions of years before the birth of Christ. This butterfly is, for some reason, a survival of ancestors whose existence we have only suspected. Mr. Powers and I owe you a debt that we can never repay. I know men that would have given thousands to see what we have been asked to see for nothing. I assure you that I will say nothing of this until you give your permission, but I must ask one thing. This moth is a female. Without another moth, her eggs will be infertile. Why not arrange to sell it to me and have me place it in our Museum? Any price you name will be paid you. We should not delay. At any time it may sail away and either be lost or damaged."

Timothy Jones had been a silent spectator to this scene. Without intending to, he had overheard the conversation, and in a quiet manner, he joined in it.

"I would advise you all to leave the poor thing alone till tomorrow. They do not gain their full size for at least twenty-four hours and for that long they remain quiet. I am sure this moth will be far larger and finer in every way if we wait. Tomorrow afternoon will be time enough to kill it."

Everyone, especially the men from New York, looked at him. Mr. Powers walked over to where he was lazily smoking.

"Mr. Jones," he exclaimed, "you know a great deal about this that you are not telling us. Why not come clean and give us the entire story?"

"For a very good reason, Mr. Powers."

"And what is that?"

"If I told you all I know about it, you would not believe me. Ever since I came to this part of the world people have been looking on me as a liar. Naturally, I am sensitive. No one believes me any more. Even the ladies who buy hose from me doubt me at times. But you can take my word for one thing: This butterfly or moth, or whatever you want to call it, will still be here tomorrow. They stay rather quiet for at least a day."

"Suppose we assured you that we would believe you?"

"You might say so, but you wouldn't feel so. You people are so scientific that you won't believe anything unless you see it. You are just a lot of doubting Thomases. Why, Doctor Rock told me that even when you saw the pictures you accused her of manufacturing them; and she is a lady. Instead of talking to me, why not look at that beauty? Be a long time before you ever see anything like that again. See those wings move and begin to glisten in the sunshine as they dry."

The men saw that nothing was to be gained by talking to Jones; so they began to take notes on the moth. With the aid of a long ladder they made careful measurements and noted carefully the size, anatomy and color. They were especially impressed by the close resemblance to the *Bombyx*, the silkworm of commerce. They did not stop their examination till the onset of twilight.

It was hot. It was unusually hot for that time of year. Everybody was tired, weary, not so much from work as from the excitement. Nerves were frayed, and Doctor Rock, always the physician in spite of her resignation from active practice, suggested that they all go to bed so they would be ready for the more serious business of the next day, the killing of the moth and the preparation of its body for shipment to the museum. For she had finally agreed to give it to the Academy of Natural Sciences. The professor had, in gratitude, asked for the privilege of naming it after

Anyway, he was thrown under some large bushes, and that was the last that he knew . . .

her. Thus, everybody was satisfied, happy and tired.

Helen Brown did not want to stay all night. She said that she had special reasons for leaving at once. Timothy Jones said that if that was the case, he would go with her, because he did not think a woman should go without an escort at night, and O'Malley had better stay on guard. He promised to return early in the morning. There were a few hints, he said, that might be of use to them in the preparing of the moth for shipment.

By ten, all in the cabin were safely in bed. Not asleep, however. The heat was intense. Sheet lightning filled the sky. There was no rain, but a constant rolling of thunder. Just before going to his room, Professor Packard made a last trip to see the moth. O'Malley was on guard. Everything seemed as it should be. On the timber, far above the ground, the enormous moth rested, apparently asleep.

The storm continued most of the night. The heat seemed to grow more intense. Toward morning a cool wind came over New Jersey from the ocean and sent all in the cabin into a deep sleep. Consequently, it was not till eight that any one wakened, and then, it was by force. Mrs. O'Malley was shaking Doctor Rock by the shoulder.

"For God's sake, Doctor, dress and come down to the lake with me! There has been some kind of hell raised there last night, and I think the old man is dead. At least, he is bleeding badly, and I cannot rouse him."

Ten minutes later the doctor, Packard and Powers and a few frightened servants were down by the lake shore under the cocoon. O'Malley was on the ground breathing deeply and bleeding from a severe cut in his chest. Part of his clothing was torn off. The moth was gone, but scattered over the ground were tattered pieces of wing, pitiful evidence of the fate that had overtaken the iridescent beauty.

Doctor Rock started to take care of O'Malley. He was carried to the cabin, the hemorrhage stopped and the wound bandaged. After helping the doctor as best they could, the two disappointed New Yorkers went back to the beach.

"This is the fault of no one but Jones!" thundered the irate professor. "He should have let us put this moth in a safe place."

"He may have been at fault," agreed the retired broker, "in giving us poor advice, but he certainly had nothing to do with the killing of the moth. What would have been his object? And why should he have tried to kill O'Malley?"

"I simply do not know, but in my opinion he is simply a damned rascal!"

Just then the very man they were talking about walked toward them.

"Good morning, gentlemen," he said as he came near. "O'Malley is conscious and waiting to tell his story. I see the moth is dead. Poor thing. Born for a day. Why should it have been born if only to die so soon? Come, let us listen to O'Malley."

But O'Malley had little to say. He simply said that he had been rather nervous, what with the storm and the responsibility and the first thing he knew he had been knocked down. He thought some large animal must have tried to kill him. Anyway, he was thrown under some large bushes and that was the last that he knew till he found himself on the couch in the cabin. Doctor Rock gave him a sedative and told him to go to sleep. The scientists went out on the walk in front of the cabin.

CHAPTER X

Big Game Hunting

TIMOTHY JONES left the party and went over to his Ford car. The New York men watched him, and there was no doubt that they were not only angry at him, but also very suspicious of the part that he had taken so far in this drama. He, however, seemed absolutely unaware of their emotions. At least, if he did realize how they felt toward him, he did not show it by his action. He went to the car, took out a large package and walked back to join them.

"Can you men shoot?" he asked.

"Shoot what?" asked Doctor Rock.

"Big game."

The professor acknowledged that he had once hunted bear. The ex-broker admitted that he had been in Canada after moose.

"Good enough," answered Jones. "At least you will be able to pull a trigger and not be gun-shy. I have here three elephant guns, loaded with explosive bullets. If you hit the right place, that would seem to be enough to kill anything. I want you to take these guns and become thoroughly acquainted with them. How to load them and all that sort of thing. Then I want you to stay here with me. We will build a shelter out of some plank and brush. We are going to stay here till something happens, and we will stay here forever if we don't hit the thing we are shooting at, Doctor Rock. You send all the help down to Shawnee and tell them to stay there till we let them know. You see that we get some coffee and sandwiches. If you want to help with the shooting, you can take that little rifle you have in your library, but my advice is to stay indoors."

"But see here, Mr. Jones," protested Professor Packard. "You are doing a lot of ordering and no explaining. Just what is all this excitement?"

"You won't believe me if I tell you. But you have to do as I say or get out. You don't have to stay here and get killed, and I am telling you that unless we shoot straight and fast, we are going to be. Be sensible, man and do as I ask you to. Mr. Powers, you trust me. I must have some one to trust me. Doctor Rock said that you were a sensible man. You'll stay here and take orders from me, won't you?"

Sterling Powers looked at Anna Rock. Something telepathic, mystic passed between them, and the rich man said slowly, "Hand me a gun, Jones, and show we how to load it. I will do anything you say."

And a few minutes later the professor had the courage and manhood to acknowledge that he had been overhasty in his speech. At once the three men started to get to work. Hours passed and it was noon. More hours and it was four in the afternoon. It was another hot day. The three men sweated in their shelter near the side of the lake. Jones lay on his back, smoked his pipe and watched the sky. During that whole time he only said a few words, but again and again he examined the mechanism of the three guns.

At last he saw what he was looking for. Silently, he pointed into the sky. An airplane was driving, full speed, through the clouds. Behind it was another plane, of peculiar construction. It seemed as though the one was chasing the other. Rapidly the large one came up to the small monoplane and overshadowed it.

"That is wonderful," exclaimed Professor Parkard. "They must be doing that refueling trick."

And then the two planes, firmly united, swung around and came back toward the lake. They were at least six thousand feet in the air and twenty miles away, but the visibility was perfect. Jones stood up and whistled shrilly.

"I promised the doctor I would call her," he explained. "I would rather have her stay in the house, but she insisted."

And the doctor came running down from the cabin with her pet rifle in her hand.

She seemed to ignore the two men, but sat down near the broker, and when she spoke, she talked right at him. "Do you think," she said, "that I would leave you here alone?"

"I do not think you would. In fact, I know you wouldn't," was the soft reply. Jones simply kept on watching the double airplane. The professor frowned as though something were happening which he could not understand. He was a scientist, not a sociologist.

Then on and on came the two planes, and as they came closer, their appearance was more peculiar. At last, with a rush, they landed on the lake shore, fifty yards from the ambuscade. Then it was all too easy to see what had sailed down from the sky.

One of the planes had, in reality, been nothing but a large dragon fly. Large? Yes—there is no doubt of that; for in its anterior legs it held the monoplane firmly, while with its mandibles it was rapidly tearing it to pieces.

"Let's all shoot for the head," whispered Jones. "Then load as fast as you can and aim for the upper thorax. Doctor Rock, can you see that eye? You ought to. It is as large as a barrel. Aim for that. It will worry it anyway."

At the signal, the three elephant guns roared. The dragon fly rose in the air and then fell, kicking and twitching with the released, uncontrolled energy of one hundred feet of insect body. Again the guns spoke and, in a short time, once more. That was an end. The vital parts of the insect, blown to pieces by the explosive bullets, the rest of the body was harmless. The four ran up to the body. Gradually movement ceased and, as luck would have it, the enormous trunk rolled to one side, uncovering the monoplane. A frightened aviator crawled out from the wreckage, dripping with juice from the insect, but otherwise unhurt.

"My word!" he exclaimed. "I went through the war, but this beats all that I ever saw there. Is this your private pet?"

"Private pet? What do you think we are?" exclaimed the doctor. "You trespass on private property and then insinuate that we keep hundred-feet dragon flies for pets! Man, you had a narrow escape from being eaten by that thing we just killed. Won't you come into the cabin and wash? My name is Doctor Rock. These gentlemen, whose accurate gunfire saved your life, are Professor Packard of the New York Academy of Natural Science; Mr. Sterling Powers, an authority on New York *Lepidoptera*, and Mr. Timothy Jones, owner of a hosiery store in Shawnee."

"And I," replied the man, acknowledging the introduction, "am Captain Lewellen, of His Majesty's Royal Air Corps. I was doing a Montreal-Mexico flight when this beastie started to chase me."

"Could he fly fast?" asked Jones.

"Fast? My word! I was easily making two hundred miles, and he had no trouble at all. Just as soon as he got me, I cut off the gas. I did not want to irritate him by tickling his belly with the propeller. I do not think the old boat is injured much, but we will not be able to tell till we can get rid of his blasted carcass."

He walked over to Jones.

"Did the lady say your name was Jones?"

"Yes, Timothy Jones of Shawnee."

"Seems that I have met you before."

"Shouldn't wonder. I used to be a grocery clerk in an A and P store. Lots of folk came in there that I did not know by name."

The doctor took the captain indoors. Jones took the guns away to the kitchen to clean them. The two scientists were walking around the dead dragon fly, taking measurements and pictures, and talking matters over. Finally, the entire party gathered in the sitting room. It was growing colder and a mist was falling. The captain was washed and tried to look dignified in a Roman toga, made out of several Indian blankets and safety-pins. Jones was twiddling his thumbs. The doctor and the New York men were whispering together in a corner. Finally, they all

seated themselves around Timothy Jones. Sterling Powers acted as spokesman for the group.

"We have been talking this thing over, Mr. Jones," he said, "and we have decided that we have a right to ask you to be honest with us and tell us what you know about the events of the last two months. I think that you can rely on us and, if you want secrecy, we will promise you to keep anything you say to ourselves. But we feel that after all we have been through, we are entitled to the facts."

Timothy Jones looked a little more inane than ever.

"Of course," he said, "you know all about my working in an A and P store?"

"Yes," replied the doctor, "I believe that we do."

"Then I judge that you do not want to hear about my experiences there? How I won the district prize? After that I was in the war, and after the war I was a wanderer. I finally landed in Borneo, and went to work for this German. His name was Scheermann. He was an authority on bugs, and when he was drunk used to brag that a man by the name of Lubeck had been his pupil."

"STOP a moment," ordered Professor Packard. "Lubeck is the world's authority on insect life. He has repeatedly stated that he owes everything to the instruction of his Master, Herman Scheermann. But Scheermann died over thirty years ago. He sailed for the East and his ship was wrecked."

"He did not die," retorted Jones calmly. "He simply took the opportunity to let the world think that he was dead. He went to Borneo and I worked for him there. Over a year. He always had one or two white men working for him, and when they grew tired and wanted to go back home, they died. I am sure that he knew bug life, and he knew human nature. He was a king in the wilds of Borneo, where he had his little city.

"I worked for him just long enough to secure a little idea of what he wanted to do to the world. He had, at first, the idea that he could grow better silk. Then, as he grew older, he found that he could do the same thing with other insects that he could with the silk moth. So he started to play with insect life, and I guess it made him insane. Perhaps he was insane before he came to Borneo. Anyway, he had an idea that he could make the world a great brotherhood by frightening them. He thought he could grow beetles and dragon-flies so large that they could conquer any army sent against them. Not so silly an idea, after all. What would our air force do against ten thousand dragon flies like this one we killed this morning? Anyway, I became frightened, and when I found that all the white men ahead of me were dead, I made up my mind to escape. But I wanted to take something with me—something I could show the world and make them realize the danger that threatened humanity.

"That is why I took the eggs out of the store-room. I went out of Borneo and I went fast and kept on going, hunting for a place to hatch the eggs. Doctor Rock was the first one who seemed to have the ideal mind and the proper surroundings. She has done very well indeed with her part of it. I did not realize that there were two kinds of eggs till the one worm went into the water. Even then I did not visualize the danger. In Borneo I was never allowed to go into the dragon-fly valley. All I knew about them was what Scheermann would boast of when he was drunk. I knew that they ate meat and I suggested to the doctor that we put horse-meat into the lake, and for over ten days that creature has been eating nearly an entire horse every twenty-four hours. I had an idea that it would stay under water for a long time. I was wrong there. It must have come up the night before the storm, crawled through the brush, climbed a tree and shed. I suppose we would find its case if we looked. During the intense heat of the storm it became hungry and killed and ate the harmless sugar-eating moth. Then it sailed off for new game. I was not greatly worried, because I knew something about the habits of the ordinary dragon-fly. They have a favorite resting place, and when they capture their prey, they return to that place to eat it. I knew after it killed the moth that it would come back. In the air it met Captain Lewellen and thought his airplane was some kind of bug, caught it and brought it back here to eat. Had we not been prepared, the captain would now be somewhere inside of the fly. That is my story.

"I can say this much. Scheermann was behind those butterflies in New York City. I do not know how he did it, but he was responsible. He was the one who put the paragraph in the paper. He wanted me and he wanted the eggs. He must have had some idea that I came to America. Anyone but an insane person would have gone at it different, but he thought he could frighten the nation. I think that he has gone back to Borneo. Perhaps he is preparing for trouble. You remember the paragraph put the time limit as the first of next January. Now I think that you know the danger. You have seen a giant dragon-fly in action. In the cold storage that Scheermann has—yes, actual cold storage in Borneo—he has literally tens of thousands of eggs, and all he has to do is to take them out and put them in the sunlight. What are you going to do about it?"

"The Government should be warned of the danger!" said the professor.

Jones laughed. Up to this time he had not even smiled, but now he laughed, and it was some time before he could control himself enough to say, "But don't you see, my dear professor, that no one will believe you? Suppose you go before a number of Senators and tell them my story and what you have seen and ask them to communicate with Great Britain for a joint expedition into the wilds of Borneo? Do you know what would happen? They *would not believe you.*"

"There is only one thing to do," said Sterling Powers firmly. "I do not know what the cost of such an affair will be, but whatever it costs, I can finance it. Suppose I go over there and settle this matter?"

"I think that I had better go with you," chimed in Doctor Rock.

"I would die of chagrin if you did not ask to go with me," cried Professor Packard. "What a wonderful thing it would be! There is no telling what that man has done in these thirty years. Perhaps if he is approached in the right way, he can be reasoned with."

"Now, see here," said the English captain. "I am not on regular duty. In fact, I am retired. You folks will need someone who can fly; so, why not ask me to go with you? I have a little money and will pay one-third of the expenses."

Doctor Rock was accustomed to rapid action. She showed this trait here. Without the loss of a minute, she went for paper, pen and ink.

"I think we should draw up an agreement. Suppose the captain, Mr. Powers and I agree in writing to share the expense of a trip to Borneo to free the world of this menace? We will ask the professor to go along as our guest, because his scientific knowledge will be of the greatest value to us. I am going to ask Miss Helen Brown to go as my guest. We are great friends and have never been separated. And I want Mr. Timothy Jones to go with us as guide and adviser."

"I am sorry, Madam, but I cannot go," was the ex-soldier's astonishing statement.

"You mean that you won't go?"

"That is what I mean. I have a business that is a pleasure to run. If I leave it for six months, it will be ruined. I want to stay in Shawnee and sell hose to the beautiful ladies and play golf and swim. I have been in Borneo; I know that place, and I know that German. I feel that I am happier right here. When I awake in the morning and see the Water Gap, it makes me happy, but I never was happy when I was walking through Scheermann's private graveyard. I will draw a map for you, and tell you just how to get there and all about it, but I do not think that I will go. My nerves are not as strong as they used to be."

They could not make him change his mind. Even when Miss Brown positively accepted the doctor's invitation, he sadly insisted on remaining in Shawnee.

Busy days came. The dead dragon-fly had to be cut up and disposed of. This, in itself, was no little job. Lists of supplies had to be made, plans gone over, maps studied. Through it all, Jones moved like a sad, sorry shadow of his former self. But nothing could make him change his decision, not even the fact that O'Malley was going with Doctor Rock.

At the last he announced that he was not going to New York to see the party off. Miss Helen Brown so far forgot herself as to go to the hosiery store and say good-bye. He gave her a picture as a farewell gift.

A few days later the party sailed for Europe on the *Brennin.*

CHAPTER XI

Borneo!

TIME was passing slowly, as far as the governor of North Borneo was concerned. For some time his work had been purely administrative. Few visitors came to Sandakan, the capital of his province, and those few had lately been decidedly uninteresting. It was, therefore, a relief to him to hear that a new steamer had entered the harbor and that one of the passengers desired an interview.

He was more than surprised to find that the visitor was a middle-aged lady, evidently an American and apparently a physician. The governor, therefore, dressed with more than his usual care and made a dignified and imposing appearance as he welcomed Dr. Anna Rock, late of Brooklyn, New York State, U. S. A., to his office.

After refreshments had been passed, he asked the doctor what he could do to make her visit to North Borneo a pleasant one. He said that he would try to make it pleasant but could not promise comfort, as the weather was apt to be hot and sultry with frequent tropical rains.

"Do you want to see my papers?" asked the doctor, passing him a bundle of official documents. The governor took them and looked them over hastily.

"These seem to be all right, Doctor," he said. "I will not take your time or mine examining them in detail. What are your plans and in what way can I help you?"

"We are a party of scientists, Governor," said the little lady. "The group is composed of Professor Packard, of the Academy of Natural Sciences, New York City; Mr. Sterling Powers, retired broker and amateur student of entomology; Captain Lewellen, retired captain in the British Air Corps; Miss Helen Brown, a friend of mine, and myself. I am a retired physician and interested in orchids and silkworms. We wanted to spend a little time in your country, gathering specimens for the Academy in New York City. I have an Irish servant, O'Malley, and that concludes the list. We will need a few natives and some boats and local supplies."

"Have you any idea where you want to go?" inquired the governor. After hearing the purpose of the company he had lost interest. After all, they were simply one more group of bug-and-plant hunters who would want to spend some weeks in the interior and at the same time enjoy all the comforts of civilization. He could furnish guides and natives in plenty for such an expedition. What he longed for was something to break the weary monotony of his existence.

"Yes," was the doctor's unexpected reply. "We have a very definite objective. I understand that in your territory is a mountain called Kinabalu. It is the highest mountain in Borneo. To be exact, it is 13,694 feet above sea level. East of it is a plateau. This plateau can be reached by going up the Kinatabangan River, first by a small steamer and then in native boats. Perhaps the last hundred miles will have to be done on foot, unless we can secure some of those little native ponies the travel books rave about. Our scientific work will be done on that plateau.

"No it won't!" cried the governor, almost jumping out of his chair.

"Why not?"

"Because that is the worst spot in all Borneo. White men have gone in there now and then, but they have never come out. I can sit here and tell you stories of that district that will make you wish you were back home. There are a few tribes up there. We call them the Dusans. They used to be head hunters, and I guess they are yet, though no one has been up there to find out for years and years. Savages? Well, that would not be so bad if that was all they were, but they must be worse. You ask a hundred of our guides and local natives to take you up there and one hundred of them would refuse. They would say that they were sick or busy or going somewhere, but the real reason would be that they were afraid to go. Strange demons haunt those mountains. Gods of terrible shape. Personally, I do not credit all those tales, but I do know that it is no place for a white woman. You can go out in my back yard and find all the pretty plants and bugs you want, and you are given my permission to take any to New York that you want to take, but you are not going up to the Kinabalu district."

"Again I will have to ask you why not?"

The governor was decidedly irritated. He jumped up and walked excitedly up and down the room.

"I cannot talk to you, Madam. I cannot swear in the presence of a woman. I have told you as plainly as I can that no one has gone up in there for the last thirty years and come back. They die up there. Some time, when my native constabulary is civilized enough to overcome their superstition, I will go up there and clean the place up. Degenerate Chinamen, bloodthirsty natives, perhaps a gang of half breeds, robbers, fugitives from justice! I do not know what there is up there, but it is just Hell. Must be. And you and your party are not going! You *are not going!!* I would be writing letters of explanation to the United States Government for the rest of my life, trying to explain why I allowed you to go when I knew that it was certain death. You send Captain Lewellen to see me. He is English and I can make him understand."

"That is final?" asked the woman, standing by her chair.

"Absolutely! What are you going to do about it?"

"We are going."

"I forbid it. You will have no help. If necessary, I will place you under arrest and communicate with your country, explaining the matter."

"That is wonderful," exclaimed Professor Packard. "They must be doing that refueling trick"

"General Wood," said the doctor quietly. "I come from a land that does not know the word, 'failure.' We have put a lot of time and thought and money into this trip. We have maps, equipment and the necessary brains and cash. I do not want to appear conceited, but I will say that our group are unusually well prepared to take care of themselves. The only weak spot is my friend, Miss Helen Brown, and even she is rather clever with a gun. All I can say is that I will go back and confer with my party, and we will let you know our final decision in a few days."

"That is more like it," replied the governor. "All of you come in and have supper with me tonight."

"Sometime, and thank you very much, but not tonight. We will be too busy. To use an American phrase, we will have to go into conference."

THAT was all the explanation the governor could get. She left him fuming and sweating.

"Dammit!" he cried. "Here I am all wet and excited over some silly Americans. What fools we were in 1776! If we had just been sensible and kept those colonies, at the present time the English people would be Lords of the World. What people those Americans are! I think they call themselves *Go-getters*. Little woman. Little old woman! Sat there and said she would let me know. Wanted to know why? Told her she was going to certain death and she wanted to know why? Hell! Up goes my blood pressure. Guess I will have to call on them. Officially. Pay my compliments to the other lady and the men. What did they do to that captain? Must be in love with the girl to go on such a blarsted, silly, bloody trip."

And that is what the governor did. In his official launch, with an escort of his lesser officers, he called that evening on the scientists. They received him, as best they could, on their little steamer, which was well loaded with supplies of all sorts. He met Miss Helen Brown and the rest of the party. He was introduced to Captain Lewellen, and as soon as he could do so, he took the Englishman to one side.

"I cannot let you go up to the Mount Kinabalu district, Captain," he said rather firmly.

"So Doctor Rock told us."

"What are you going to do about it?"

"The doctor has not decided."

"My word! Does she rule all you men?"

"Just about. She is a very remarkable woman. Rich, capable, brilliant, fearless, and never married. We talked it over and decided that she ought to be the head of the expedition."

"But you will be killed if you go there."

"Is that so?"

"Absolutely. That is bad country for over twenty-five years. White men, tramps, soldiers of fortune, beach combers, have gone in there by the dozens and none have ever come out alive."

"Not one?"

"Not a single one!!"

"I understood that a man by the name of Timothy Jones came out."

"Never heard the name. There may be white men up there now, but if there are, they are the scum of creation, men who have gone native, refugees from the law. It is a bad place to go. Stay away."

"From what you say, it is a bad place. Well, the best we can do is to talk it over and see if we can find the same bugs and plants elsewhere. You will refuse to send us up country on the Kinabatangan River?"

"I will not only refuse, but I will arrest you if you try to go without my permission. I will have you all declared insane by my medical adviser and send you back to England via Calcutta."

"That would be harsh treatment."

"Not as bad as letting you all be killed."

For a few days after this visit the governor received no definite news from the steamer. At last, worried over their calm and non-committal way of taking his ultimatum, he decided to make another call. He found a few sleepy sailors, a sleepier captain and first mate and O'Malley, who, clad in white pants and straw slippers, was lazily fishing over the side of the vessel, seemingly oblivious to his surroundings.

"O'Malley!" called the Governor sharply. "Where is Doctor Rock?"

"I don't know, General Wood. For the life of me, I don't."

The general almost ran up the rope ladder and took the Irishman by the shoulder and shook him.

"Where did she go?" he shouted.

"She and the rest of them went up country in the captain's hydroplane. That is what makes me so mad. She said to me, 'O'Malley, some one has to stay here to look after our supplies and answer our radio, and you are elected for the job. You are married and I never would be able to look your wife in the face if anything happened to you.'

"That is what she said to me, sir. Right after you called on them they had a meeting and started to put the plane together and lower it on the water, and off they went, early this morning, bound for that mountain. Three men and two women and their guns and a little food. Enough gas to get them there and back; at least, they thought so. Doctor said all she wanted was to get there. Said water ran down to the ocean and they would come down on the river."

The governor sat down on a pile of rope and wiped the sweat off his face.

"They will never come back, O'Malley."

"Then I am here fishing for a year. The doctor has hired this steamer for that long and she said that I should keep it right here till they came back, or the year was up. I would like to have my hands on Timothy Jones. He is the guy who got the poor little doctor into this mess."

"I never heard of him," replied the governor as he recovered his dignity and walked slowly back to the rope ladder.

CHAPTER XII

Mount Kinabalu

THE machine that Captain Lewellen had selected for this adventure was a beautiful hydroplane. He had selected this type of aircraft for two reasons. First, he thought that he might have to start from water, and second, he thought that in an uncultivated country, largely forest, the only safe landing place would be a lake.

The hydroplane might have been larger, but it could not have been more complete. Naturally, when the party found that the governor absolutely refused to help them, their only thought was of making the journey by air, and the captain was sure that this could be done, provided no effort was made to take supplies with them. They loaded the gasoline tanks to capacity, filled part of the space with their guns, ammunition, and a little food and then just about found room to squeeze in the pilot and four passengers. The plane had been assembled on the side of the steamer away from shore. In that way perfect secrecy was obtained, and the party was able to leave in the early morning without any of the officials being aware of it.

Their destination was Mount Kinabalu, or rather, the plateau that nestled on its eastern shoulder. Careful measurements on a large scale map showed them that it was just one hundred miles from Sandakan. Just one hundred miles of air travel. A distance that could easily be made in less than two hours. One hundred miles by air, and according to the governor, the distance from Heaven to Hell by land. By air, a pleasant journey, simply far enough to get the motor running sweetly, but otherwise, a trip almost impossible for any but the strongest to make. Twenty miles up the Kinatabangan River in a little steamer that at times made a mile an hour or less against the sluggish current; twenty miles of puff and blow and churning of the weeds and frightening of the snakes and fighting of the mosquitoes. Then more miles in native canoes, two natives and one white in each canoe, and death on every side grinning at fate. Then the long walk through swamps and jungles and forests, so dark that the sunlight never reaches the ground and Death still with the party, and fate shaking dice with him to select the next victim. Snakes so small that they are never noticed till they bite and then so powerful that the blood turns to water in three minutes. Insects, a thousand varieties, ten million individuals; plants that sting, roots that trip, leaves that cut to the bone, and back of the tree, hid by the rock, covered by the mimicry that is the most ancient art in the world, the head hunter, waiting for one more trophy before he goes to buy another bride with a basketful of dried heads. Could men go to Mount Kinabalu on foot? Certainly. Men, since there were men, have gone everywhere, but most of them *never came back.*

One hour and thirty-seven minutes after leaving the steamer the hydroplane settled with the grace of a swan on the waters of a little lake which was, millions of years before, planted by a giant hand, at the very foot of Kinabalu. To the west the mountain reared, partly wooded, but the top was bare and forbidding. Tradition states that Buddha stepped there as he journeyed, and that the footprint is still in the top of the rock. But who has been there to see?

The plane came to a slow pause near the rocky shore of the lake.

"So far," said Doctor Rock, "The description given us by Timothy Jones has been deadly accurate. He said there was a lake on the east of the mountain and here it is. This is almost like a scene from the Arabian Nights. The governor said that this part of Borneo was Hell on Earth. How did he know? He was never here. Must have listened to a lot of fairy tales. However, we better take our guns with us when we land. The place seems deserted."

"Not exactly deserted," whispered Captain Lewellen. "There is a wharf and a powerboat, and that slope there looks like a grass lawn. What a miracle to find all these right in the jungles!"

"Of course, anything is possible," interjected Sterling Powers.

"And here comes the owner," whispered Helen Brown, "and a Chinaman behind him, carrying an umbrella."

The captain anchored the hydroplane and the party went on shore. They were just a few rods from the wharf, and soon they were met by the white man and the Chinaman.

He was a small man, somewhat old, but immaculately dressed in white linens. Clean shaven he was and his hands and nails showed the culture and refinement of years of careful living. He talked with a slight accent, but his words were well chosen and his tone soft and pleasing.

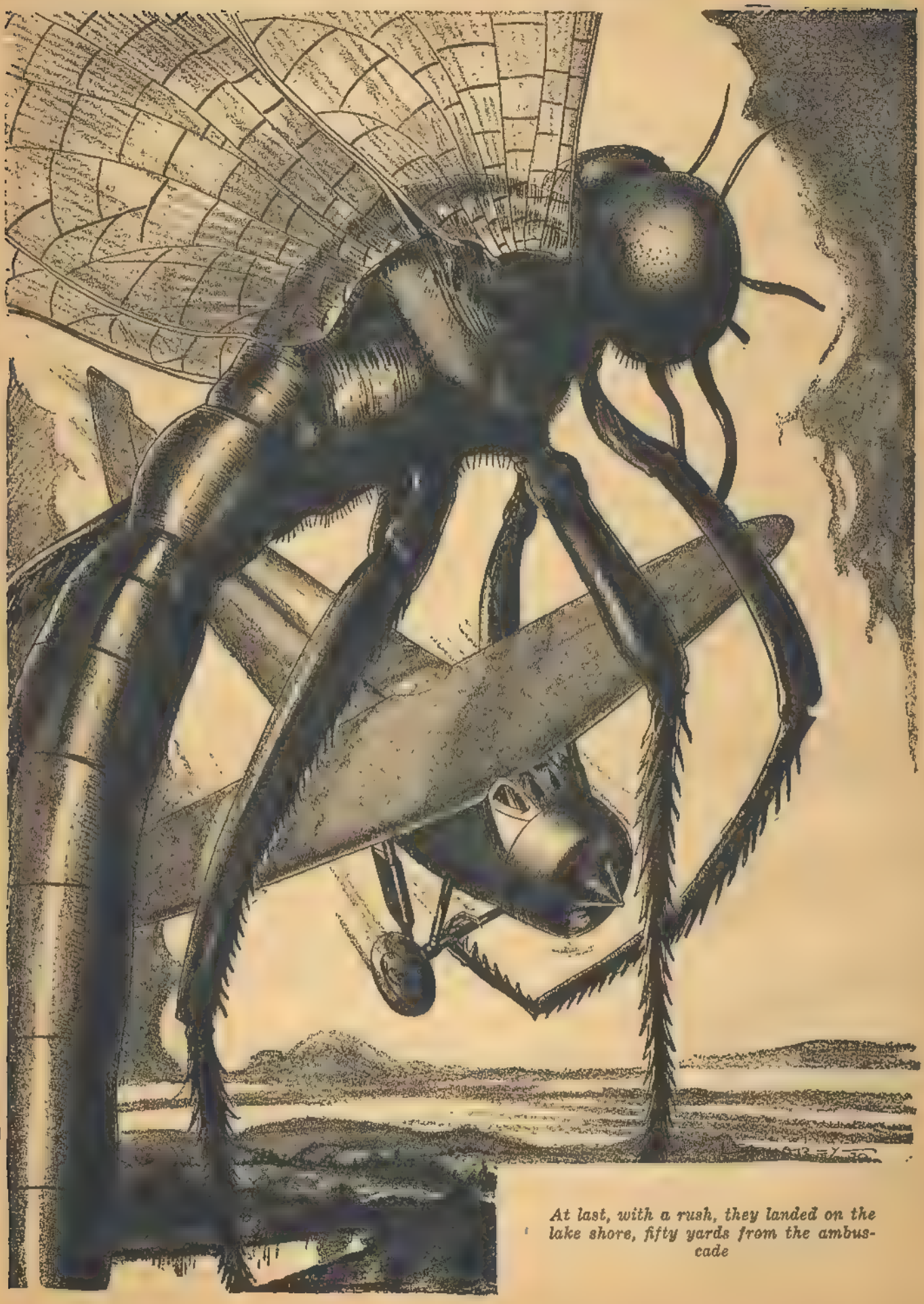
"Allow me to welcome you to my home," he murmured. "I have been expecting you. I think that the governor was wise in advising you not to make the river trip. It would have taken you days and caused you untold hardship. Now, in a plane, it is a matter of a few hours. I always go westward over the mountains, but I believe that the eastward route is also very pleasant and, if you stay in the air, uneventful. I am so glad you wanted to come and see me. Life here is uneventful. Occasionally I go to Shanghai or Calcutta, but at my age the pleasure is not what it used to be. Doctor Rock, allow me to escort you to my home where breakfast is ready for you. Gentlemen, care for Miss Brown. Yes, I have everything all ready for your entertainment. The radio service I established some years ago is very useful. What do you think of my lawn? Creeping bent grass. Hard to establish and care for, but worth all the trouble it causes. It adds a touch to the place. I have it cut often; makes me feel better—like shaving once or twice a day."

The astonished party made only general answers to his rambling discourse. It was not till they were on the wide gallery of his house, which was well hidden in the forest that they realized that they had left their guns in the hydroplane. Each of the party carried a small revolver and some ammunition in his belt. Otherwise they were unarmed. Seated in comfort on the gallery, drinking iced lemonade served by white-robed Chinese servants, they looked perplexedly at each other. There was neither time nor opportunity for anything like a conference. Soon small bamboo tables were placed in front of each guest and breakfast served; then tobacco.

"I WOULD advise," said the old gentleman, "that you allow me to put you up in my home while you are in this vicinity. The hotels here—are impossible, and there is some element of danger. Will you be my guests?"

"I am afraid, sir, that it would be too great an imposition on your hospitality," said Sterling Powers, suavely. "We came out here to rough it, and if you make things too pleasant for us, it will take away much of the anticipated enjoyment of the trip. Besides, it hardly seems proper to accept this much courtesy from a man who, so far, has not seen fit to give us his name."

"An oversight," cried the old man. "An unintentional, but at the same time, an almost unforgivable breach of social etiquette. Will you pardon me? Especially the ladies? I have been away from ladies for so long that



At last, with a rush, they landed on the lake shore, fifty yards from the ambuscade

I forget. Besides, I am growing old. My name is Herman Scheermann, and I have lived here for so many years that I feel that I never had any other home. I know you all through my radio agencies. Now that that is done, may I renew my invitation for you to be my guests?"

"We will accept, Mr. Scheermann," was the rather unexpected reply of Doctor Rock. "We have come a long distance and spent a good deal of money for no other purpose than to have a long talk with you about some matters which we thought might be of mutual interest. I admit that we thought to find you under different circumstances, but evidently we were either misinformed or made a mistake in judging human nature. So, if it is not too much to ask of you, we will stay as your guests till we have talked these matters over and arrived at some mutual understanding of our difficulties."

"Everything I have, doctor, is yours for as long as you want it," said the old man, bowing. "May I suggest that I show you to your rooms so you can remove the trace of travel and prepare for dinner? The gentlemen will find white linens and the ladies may find in their suite a few things to gild the lily of their beauty. Chang, show the gentlemen their rooms, and tell Nida to care for the ladies. Dinner will be served at one. For the present, you will have to excuse me, as I have engagements that will keep me busy for several hours."

He remained in the room till the visitors had left. Then he gave orders for dinner with plates for six. After this he walked leisurely out to the wharf, where he held a lengthy conversation with some natives who had come up the lake in their canoes.

The two women waited till Nida, who seemed to be a Malay type, left the room. Then the doctor whispered, "How does all this impress you, Helen?"

"At present, it is a dream, but——"

"I agree with the but part. It may end up as a nightmare. Think of all the things told us by Timothy Jones! Remember how we prepared for this man from Borneo; compare all that with the actual man. Either Jones was a terrible liar or Scheermann is one of the cleverest villains I have ever heard of. Think of it! He knew we were on our way. He prepared for us. Instead of a native hut, he has a country palace. Where does General Wood come in? How is it that the general does not know about this place and this man. He said that no man ever came in here and left it alive. Jones said the same thing. Does this old grandfather impress you as a murderer? I am sorry about our rifles. Sorry that we are separated from the men. When you dress for dinner, and evidently he expects us to put on these beautiful silks, put your gun and belt on underneath. I am sorry I brought you here. You should have stayed in Stroudsburg with your folks. I wish that Jones was here. He was a fool, but he always gave me the idea that he was capable. If only he were not such a liar! He must have lied about this old man."

"Anna Rock," the younger woman declared earnestly. "I do not believe that Timothy Jones ever really lied to hurt anything. He may have twisted things at times to make matters easier for himself, but they were white lies. At times he seemed to be a perfect fool and at other times he gave flashes of being something different. I do not know why he did not come with us. I cannot tell why he let me come without a word of protest, if he thought it was dangerous. But I do know that he is a gentleman and I would feel a lot safer if he were here. Captain Lewellen is a perfect dear and no doubt as brave as brave can be, and the other two men are brave too. They will do all they can, but Timothy would do a little more. I tell you how I feel. I am scared. Plenty scared. My advice is this. Have dinner and then casually walk down to the hydroplane and get back to the ship as soon as we can. Once there, see General Wood and tell him the whole story and let the English Government tend to the business—that is, if there is any business to attend to."

The eyes of the little doctor flashed, as she hurled her reply.

"So far, I have never been a quitter. I came here to solve the problem of the flying threat, and I am going to do my best to solve it before I leave. The governor would not believe us. He might fly up here, and then he would be sure that we were lying. The only thing I can do is to stay. You can have the captain take you back if you wish to go."

Helen Brown sighed.

"Don't let's quarrel, Anna. Life is too serious. I came of my own accord and I am going to stay as long as you do, only I think that if Timothy were here he would tell us to be careful."

One o'clock came and the party reassembled for dinner. The service was faultless, the cooking perfect, the conversation sparkling. Everything was as it should be. Herman Scheermann was a perfect host. The doctor realized more and more that it would be hard to tell the man just what their business was. Yet, it had to be done. Meantime, the old man talked on, at times rambling, at other times clearly, but always in an interesting manner. It seemed that he collected insects, orchids and live animals for the export trade. He also raised some fruit, did a little mining, made a good living and was Godfather Bountiful to all the natives. Head hunting had ceased in that part of Borneo. He served as the local judge. He had done his best to lessen the mosquito pest and reduce malaria. All of his men and women had to be protected against smallpox by vaccination and he had hoped some day to open a small hospital and install a doctor and a few nurses. He thought that Governor Wood was very capable. There was a future in the silk industry, if only the worms could be made bigger, and thus obtain a heavier silk thread. He had done the best he could, but was growing old and needed young blood and more capital. He had tried to interest some young men, but they had wearied of the solitude and left.

Doctor Rock listened to him as though in a dream. She closed her eyes and visualized the governor as she had seen him. She could hear him speak in his office. "No man has gone up there for thirty years and lived to come back. Degenerate Chinamen, bloodthirsty natives, half breeds, robbers, fugitives from justice. It is just Hell! If you go there, it is certain death."

And, in confliction came the low voice of the old man, "I hope some day to make this a country that will be an earthly Paradise, where life, property and happiness will be as safe as it is in Germany or England."

CHAPTER XIII

The Real Herman Scheermann

FOR some reason the old man's voice grew far-away and the Doctor was unable to keep awake. As she shut her eyes for the last time, she stupidly glanced around the table. Sheermann was still talking in his monotonous monotone. The Chinese servants stood motionless at one end of the room. The three men had fallen forward, fast asleep, on the table, pushing aside the dishes with somnolent arms. Helen was trying to say something even as she fell backward in the chair.

Then came oblivion, followed by the headache of the morning after.

The Doctor awoke in the room that had been set apart

for her use. Before the dinner it had been shared by Helen Brown. Now, Dr. Rock was alone except for the presence of a sleek, muscular Malay woman. The woman was evidently a guard. The Doctor looked at the windows; they were barred. Her head hurt, sitting up in bed gave her vertigo.

"Drugged!" she whispered to herself. "Perhaps Jones was right."

In the meantime, Helen Brown was rousing in another room that was similarly guarded by a native woman and iron bars. The three men were not so fortunate in their choice of quarters. They had been placed in a dry well, over thirty feet deep, with smooth walls. The top of the well was covered with a lace-work of iron bars. A clay jar on the floor was found to contain tepid water, while some fruit was the only food visible.

The three men met the situation in three ways that were typical of their former life.

The Professor took out his notebook, wound his watch and started to make the necessary entries to keep his diary up to date. He did not say a word to the other men.

Sterling Powers smiled.

"I suppose," he said, "that we stay here or elsewhere till we can arrange for a ransom. Too bad the ladies are here. But I guess the old boy will treat them right. He probably is looking us up in Dun and Bradstreet. How about it, Captain?"

The Englishman turned around. He had been carefully examining the walls of the well, tapping on them with a piece of stone.

"Ransom your eye!" he whispered. "Didn't Jones tell you that he was the only one that got out alive. How about the Governor's telling us the same thing? Ransom? Nonsense! This man is a killer. I don't know what he will do with the ladies, but we are dead men unless we get out and kill him first."

"We have our revolvers," chimed in the Professor. He seemed pleased to be the one to make this suggestion.

"Put that thought back in your subconscious," advised the Captain. "You have a gun, but what good will it do? Look at it. See how many shells you have in your cartridge belt. I have looked. The old man had us searched before he put us down here. Do you think he would miss a trick like that? Just as soon as I awoke, I found that out. Jehosaphat! What a headache! And all the time he was telling us he wanted to make the place as safe as England or Germany."

"What do you think he is going to do with us, Captain?" asked Powers.

"Kill us."

"Not in cold blood?"

"Certainly. Do you think a man like that would hand us weapons and give us a chance to fight it out? Not in a million years! I suspected something like this, and I packed a few extra shells for my revolver in my shoe heel. He must have suspected it, because I am barefooted, whereas you two still have your shoes on. Here is a game of poker, gentlemen, with the aces wild and Scheermann making all the local rules. If you are able to do any constructive thinking, better start right in now."

The conversation was interrupted by the removal of the iron bars at the mouth of the well. A rope and bamboo ladder were lowered.

"That means come up," commented the Captain. "Let's go."

He went first. At the top he was met by Herman Scheerman, who had a pair of shoes in his hands.

"Put these on, Captain," the old man ordered. "We are going to walk over some rough ground, and I do not want your feet cut. Sorry I had to take them off, but the heels needed repairing. Good morning, Mr. Powers. How are you feeling by now, Professor Packard? Well, I hope? Suppose we go walking? I thought you would like the hours spent with me better without the immediate presence of my guard, but please remember this. Wherever we go, they will be near us. They have orders to shoot to kill at your first false move. So please avoid suspicion. I want to show you my silk factory first."

He walked on ahead, and without comment they followed. Fifteen minutes of slow travel along a forest path led to a clearing, where a large bamboo shed stood. Here a dozen Chinese women worked at wooden reels. The old man paused.

"When I came to Borneo thirty years ago, I had only one idea, and that was to grow a larger silkworm so I could furnish the trade a better grade of silk. I was finally able, by selection, feeding, glandular treatment and a few other details, which I will not go into at this time, to produce a cocoon that varied from twelve to fifteen feet in length. Of course, I was not able to produce an infinite number of these cocoons, but I at once made a raw silk that was the envy and despair of the silk merchants of the Orient. They gave me fabulous prices for all could make, and I can say with pride that the richest men in China, Japan and India are wearing fabrics made with my silk. The individual filament I produce is so large that it has to be split before it can be used in weaving.

"When I first came here I had hopes of establishing my new breed of silkworm in Japan, but I saw later on, and the silk merchants realized immediately, that if I did so, the old business would be ruined, the former machinery would become useless and thousands of laborers would starve from lack of work. The silk producers of the East are very careful in regard to the labor situation. I talked the matter over with them and finally they saw the wisdom of giving me a million dollars a year in gold, provided I agreed not to export any of the eggs and to sell them all the raw silk, which would have to be spun and reeled on my estate to preserve the secret of the source. The important thing was to keep all the eggs here. Whenever a producer secures a fine strain of silkworm, the other men try to steal the eggs. That happened in the year 550. Justinian was Emperior in Constantinople. The Chinese were willing to sell him silk but would not allow any of the details of its manufacture or any of the eggs to be taken out of the country. So Justinian sent two Persian monks over to China to teach the heathen Christianity, and when they came back to Constantinople, they brought with them a bamboo cane, and that cane was filled with graine, the commercial name for masses of silkworm egg.

"That was clever. The Japanese did not want my eggs to leave the country. Occasionally, rumor reached the Chinese, and they would send men here to steal the eggs. Of course, it was my bread and butter. What do you do with thieves in your country? I kept all those men here. They had to stay here, under the sod. I will show you the cemetery later on. I only bury their clothes and private papers. The bodies are disposed of elsewhere. I will show you that too. See those cocoons the women are working on? Are they not beautiful? One of my females lays five hundred eggs. I just produce enough to supply the demand and earn the million. But I have thousands of eggs in reserve in my storeroom. Let us walk on."

Another short walk brought them to another frame building, carefully screened and immaculately clean. Opening the door, the old man asked them to enter.

"This my laboratory," he explained. "I do considerable work here with the help of two technicians whom

I trained from early boyhood. The Japs make good laboratory workers if they are trained. This place is necessary to keep my silkworms free from disease. If they developed muscardine or grasserie, the labor of a lifetime would be ruined in two seasons. My worms have to be kept healthy. I watch my mulberry forests very carefully. I would like to show you those forests and my natives feeding the worms and some of the worms spinning, but time will not allow. Are you gentlemen sensitive to the cold? No? Well, button your coats anyhow, because now I am going to take you into my cold storage. It is lighted with electricity, but at the same time it has other remarkable features. It is dry, and I have been able to so close it that all insects, birds and rats are kept out. Of course, this was necessary."

HE led the way through the forest and came at last to a door in the face of the rock. This he opened and asked them to enter. Pressing a button, he turned on the lights and illumined a large natural cave of limestone. The floor was of fine dry sand. Countless rows of bamboo shelves ranked in regular order and every shelf was filled with eggs. The air was cold, not below freezing, but certainly nearly so. The old man started to talk again, and his tone was, as before, that of an interesting lecturer.

"Here I keep my egg reserve. Silkworm eggs and other varieties. I have always enjoyed the study of insect life and, in a way, regret that I was not able to remain in Europe. My pupil, Lubeck of Vienna, has done very well. I understand that he and Professor Packard are now the leading entomologists in the world. How singular it is, Professor, that you should decide to visit me. Now if only little Lubeck were here, we would have a scientific trio such as the world has never seen in one generation. I have read your articles, Professor, and admired your ability, but I have one criticism. You have never shown any constructive imagination. You have to actually see something before you will believe it, and even then you will have to see it twice. But let us go on with our sight-seeing tour. I am going to show you some fossil rock that no other white man besides myself has ever seen. At least, I think so. Perhaps many natives have seen it. Yes, of course! Many generations of natives have seen it. We will go right through the storehouse and down these steps. This is my private entrance. The natives go through the forest and I am not sure that many know this passage. Please do not try to take advantage of my age as we go down the steps. If you look behind you, the armed guards can easily be seen following us. Let us have no unpleasant moments to mar the pleasure of the holiday. I wax facetious. Perhaps I develop the garrulousness of senility. At least, I still am able to control the situation, though I have failed so far in making America a real republic where all men are equal; but wait till January first of next year."

The men followed him down several hundred stone steps, broken routinely by wide stone landings. Electric lights furnished more than adequate illumination. At last they came out into an enormous natural pit, a terrific hole in the earth. Three hundred feet above, they saw the sunlight and the trees overgrowing the sheer precipice. The floor of the pit, which was over five hundred feet in diameter, was covered with a fine sand. Part of the rock wall was flat, the rest rudely circular. With a grandiose gesture, Herman Scheermann pointed to the flat rock.

At first the men thought that it was an ancient native carving. Then the scientists saw that it really was a fossil, nearly a hundred feet long.

Professor Packard turned on Herman Scheermann and whispered, "At least do me the professional courtesy of not telling me about this. Let me tell you, and then you can agree or not. This is a very remarkable and surprisingly complete fossil of a dragon fly from the Carboniferous strata. The celebrated Solenhofen Rocks in Bavaria have similar fossils, only none of them are over six feet in length. I have read that in Malay there is a genus of dragon fly, the *Euphaea*, that closely resembles the fossil type in Solenhofen; also in New Zealand the genus *Uropetala* is similar. This fossil appears to be a little similar to the genus *Aeschna*. Do you agree?"

"Nearly. I congratulate you on your knowledge. Only a few men living could have done as well. Doctor Hagan, who has made a special study of the Solenhofen rock, practically agrees with you. He came to the conclusion that most of these fossil genera had ceased to exist but that in parts of the Orient certain very similar types had survived. Is it not a beautiful fossil? Can you easily understand that men might look on it as a God? Let me tell you a secret. Back of the fossil's head is a cave, approached by winding steps from a room back of the storeroom. When I want certain things done by my natives and done well, I give them the orders from that cave and they think that it is the voice of the God talking to them. We have monthly services here. The worshipers gather on the rocks and then we let in a few of the God's living representatives and feed them. Quaint idea? A remarkable sight.

"I forgot to tell you. I breed giant dragon flies. I will leave you to find out how. Perhaps I found the eggs, centuries old, buried in the mud of the lake. Or I may have taken our local species and used the same technique to enlarge them that I used with the silkworm. Of course, my pets would fly away if I allowed them to; so I operate on them as soon as they come out of their pupa case. Cut the ligaments of their flying muscles so they can just crawl and eat. How they can eat!

"In the storeroom I carefully mix the eggs of the silkworm and those of the dragon fly. The occasional thief would, no doubt, take one of each kind. Then when they hatched, the one would eat the other; thus my secret would still be safe. Every detail has been attended to. I am sure that I have overlooked nothing.

"You should see this place when the moon shines full into the pit. The food is tied in the middle of the sandy floor and then the dragon fly is sent in. And the food is eaten. Sometimes we let two in at a time and let them fight over the meal. It pleases the natives, and they feel that it is approved of by the God. At the same time it gives me a powerful influence over them. I am the Priest of the God. I interpret His desires to them. When they are restless and want to leave, they recall that all who have done this in the past have been made to serve the living images of the God. A most peculiar and final service. Let us go."

He led the way up the winding face of the pit, and at last they stood on the forest floor. From there Sheermann walked through the forest till at last they came to a meadow on the side of the lake. There the grass was cut, so smooth that it gave the impression of being manicured. In regular rows were placed large rocks, each rock with an inscription on it.

"This is my cemetery," whispered the old man, and he took off his hat and stood with bowed head and folded hands. "All who die in my service are thus remembered. The natives are given space by themselves. How time passes! I come here and look at the inscriptions and it makes me feel old. So many white men have died here. There is only one stone that is peculiar. It is a stone without an inscription."

"Why is that?" asked Sterling Powers, softly.

"One man came and stayed with me a year. I was fond of him. As a man, he was lovable, an admirable organizer and a fine executive. I loved him and often, when slightly intoxicated, took him into my confidence. He would have been my heir, inherited all my wealth and my greatness had he remained with me. But he left. So the only thing I could do was to prepare a stone for him. For I will not die till I see him properly punished for his crime. He was a thief.

"I came here to grow a larger, better silkworm. I have ended by breeding giant dragon flies. I have their eggs by the thousands. All I have to do to destroy humanity is to place those eggs in the swamps and rivers of Borneo. They will breed and they will eat, and before the world realizes it, an insect plague will be upon the face of the earth, on the bosom of the waters that will wipe mankind out as a boy wipes out a mistake he has made on his slate in school. I have given them a chance. I told the United States what I wanted, and they paid no more attention to me than if I had been a fool.

"I am going to take you back to your pit now. You have seen all I have to show, heard all I have to say. It is a pity that those so clever, so intelligent, so young should die; but death must come to all some day; even I will have to die on the appointed day."

Captain Lewellen looked the old man squarely in the eye.

"You have been mighty open and above board with us, Mr. Scheermann. I suppose you realize that if just one of us escapes, the entire force of the British Empire will hunt you down till you die in a corner like a rat?"

"None of you are going to escape!" shouted the old man angrily. "You are all going to die here. Doctor Rock is going to die, too, though I never have killed a woman before. That other woman I will marry to my first technician. He is a clever Jap boy and the only one that I can depend on since that fool escaped. He told me last night that he would be my man forever if I let him have that woman, Helen Brown, I think her name is. I know you want to kill me right now for saying all this, but I snap my finger at you."

He snapped his fingers, and from the rocks natives sprang on the three infuriated men and bore them to the ground. Ten minutes later they were once again at the bottom of the dry well. It was past noon and there was just a trifle of shade. A basket of fruit and a jar of water were lowered to them.

"At least," said Powers, "he does not intend to starve us."

"No," agreed Packard, "he will not starve us. I think that he is just trying to scare us. As soon as we are ready to promise him not to betray him in any way, he will let us go."

The Englishman looked at his fellows.

"I think that you gentlemen learned human nature by dissecting beetles and butterflies. That man is not going to let us go. He is going to feed us because he wants us to live till the full of the moon. I think he made that very clear. Didn't you understand him? I did. He has some of those giant butterflies. They are carnivorous. Part of the full moon religious festival is to feed them. We are what they eat."

"Oh! Surely not!" exclaimed Professor Packard. "That man is a pure scientist, a lover of entomology. I never heard of an entomologist acting that way."

Lewellen took a banana, peeled it and ate it leisurely, as he commented on the scientist's statement.

"Before you die, you are going to find out a lot of things you never knew before. The more I see of Scheermann, the more convinced I am that Jones told the truth. I only blame him for not making us realize that he was telling the truth. And letting those women come here! I think he is going to kill us, but I doubt his killing the doctor."

"They will have to kill me first," shouted Sterling Powers.

CHAPTER XIV

Ultimatum

HERMAN SCHEERMANN walked, practically unannounced, into the room occupied by Doctor Rock. She simply looked at him without speaking. He bowed low.

"Good morning, doctor. I trust you have not suffered from the lack of exercise during these three days of necessary but tiresome confinement. I have been so busy attending to the details of my business that I have not been able to show you the hospitality that I would have liked to show under more fortunate circumstances. Will you honor me by walking with me? We will have Miss Brown go with us and thus you ladies will enjoy the outing more."

"I will be pleased to see something of the country. This outlook through barred windows—is not pretty." There was no doubt about the sting in the doctor's voice.

Fifteen minutes later the two ladies and Scheermann left the gallery of the palatial residence and started to walk through the forest. There was a well defined path, but the jungles closed in on either side. In front two natives walked, guarding against the ever possible snake, while two more, with loaded rifles, brought up the rear.

The German scientist was at his best. Every few minutes he paused to show some lovely blossom to the ladies or to pick up a multicolored lizard to demonstrate its ability to camouflage itself. The path led up the side of the mountain, but so gradual was the ascent and so steady the stream of interesting conversation, that the ladies did not tire as they might have done under ordinary circumstances. While they were in the tropics, the elevation made the atmosphere cool. At last they came to a tiny plateau, hardly more than a shelf on the side of the mountain. Turning, they saw the lake in the distance and on one side the stately residence. Near the shore was their hydroplane. It was practically untouched.

"It is a very pretty view, Mr. Scheermann," exclaimed Miss Brown.

"It is. You should have seen it when I first came here, thirty years ago. The only feature we lack here is feminine society. We have native women, but they have not the charm of the Caucasian—that is, not a particular kind of charm. In other ways they surpass. I brought you ladies up here so you could see what I own. As far as you can see is mine. A deed? No, of course not. But if you live on land and no other white man comes there or dares to come except as your servant, would you not call that land yours? All over this land I have the power and the glory. The men and women who live here do so by my sufferance. I am not only their ruler and employer; I am their God."

"That is a great responsibility," said Doctor Rock seriously.

"And one that I would like to share. That is why I brought you up here. I would like you ladies to remain here."

"Under what conditions?"

"I have a Jap working for me. He is of the nobility, but he had to leave the islands on account of an unfortunate murder. He is highly educated and a polished gentleman. I think that when I die he will inherit all

my property and carry on my work. He wants to stay here, but he is lonely. He has lived with a number of the native women, but he tires of them. He longs for an intelligent companion. I would like Miss Brown to stay here as his wife. I also need company; and I think that you, Doctor Rock, would have much in common with me. We both love nature and science. I would like to have you stay here as my wife. The four of us could be very comfortable and might finally obtain a certain amount of happiness out of the arrangement. I am a rich man. I might say, a very rich man. You ladies could have anything you asked for in the way of luxuries."

The two women looked at each other. At last Helen Brown said, "Impossible!" And Doctor Rock followed her with a rapid, "Absolutely impossible!"

The scientist did not appear in the least crestfallen over the complete rejection of his proposal. He replied, "I was afraid that it would not interest you. Are you steady? Can you look down without vertigo?"

"I think so," was the older lady's reply.

"Then let us go on. We will resume our tour of sightseeing."

And now the road led to a narrow rock edge. At its best, it was hardly eight feet wide. On either side, precipitous crags fell to a thousand feet below. On the right side was a large natural pit, at least a mile in diameter and with sides so nearly perpendicular that nothing could possibly climb its straight, smooth walls. On the left side was a similar pit, but one section of its walls was flat. The scientist handed the doctor a spy glass and asked her to examine this flat surface. She did so slowly and carefully. At last she exclaimed:

"A very remarkable fossil, Mr. Scheermann. I would like to call it wonderful, but if we use that word here, what have we left when we come to describe God? Really, with all these great evidences of a Supreme Being around you, I should think you would constantly think of better things—than some of the things you do think of."

"I thank you for the prettily worded sermon, Doctor Rock. However, there is no God in this part of Borneo except Herman Scheermann. Now, take your glass and look into the other pit. It is time for the feeding. Hear that gong? It is the signal. Every day I have five living cattle driven over this rock. The first gong tells the pets that dinner is on the way, while the next signal tells my natives to drive the cattle over the edge."

It is to Doctor Rock's credit that here, at this most horrible part of her life so far, her hand did not shake as she placed the glass to her eyes. A spyglass was not really necessary. At the bottom of the pit five large animals were running wildly around and jumping up on their hind legs, balancing themselves on their tails, like kangaroos. Even Helen Brown could easily see them with her unaided eye. The doctor looked long and earnestly, and then she passed the glass to her friend as she commented, "Dragon flies. Gigantic dragon flies. But what did you do with their wings?"

"Just as soon as they were hatched, I operated on their flying muscles. You see—if they could fly—they would not stay here."

"How very clever. And you want them to stay here?"

"For the time being. Later, by hundreds and thousands, I will let these beauties fly over the world. I have over fifty thousand of their eggs in cold storage, and I believe that if properly distributed, the insects would overrun the world in two years or perhaps three. One of those, flying, could capture the average airplane."

"I think that it could easily do that. How long are they?"

"Nearly one hundred feet. I presume you note the close resemblance between them and the fossil——?"

JUST then the gong sounded and a frightened bellowing of cattle was heard. On the rim, a hundred feet from where the ladies were standing, five steers came breaking through the brush, saw the rim of the pit and tried to run back. But a pitiless cordon of spears drove them on, and one after one they jumped into the void.

Far below, the dragon flies waited, and as soon as the cattle landed on the rock floor of their pen, they sprang on them and tore them eagerly to pieces. The doctor's hand shook a little, but she took the glass from her belt and again looked through it. At last she exclaimed:

"They eat hair, hide, bones and everything!"

"Certainly. They are hungry. I keep their appetite on a fine edge. Now, take your glass and look on the other side. Over in front of the fossil dragon. See those stakes? Every month we have a service here in honor of the Dragon God. The God gives his orders through the fossil mouth. The people, safely seated high up on the sides of the pit, hear, remember and obey those orders. For those who fail to obey there is but one punishment—death. I am really the God. There is a small cave back of the fossil mouth. I stay there, and through the orders of the God I rule the people—with a rod of iron. At the same time I am kind to them.

"We have a meeting once a month. I was raised in the Lutheran church, but our meetings are different from the kind I attended as a boy. We wait till the full moon. When it reaches a certain part of the sky, this pit is illumined, like daylight. The people assemble. The God talks to them. They worship him. Flowers are hung on his tail. Then all retire to a safe place. I forgot to state that the food is tied to those stakes. No, not cattle, but live men and women who have disobeyed the orders of the Gods and, if all have been faithful during the past month, then slaves that have been captured, or sometimes the old and sick of the community serve. A large door is raised, which allows the dragons to enter the pit of worship. Amid the pleasant songs of the congregation they eat their monthly offering. That is all."

"Is that all?" asked Miss Helen Brown.

"Not all. I forgot one thing. Unless you ladies agree to my proposal and stay here with us, the three men will be tied to three stakes at the next meeting. If you do agree, I will liberate them, provided they promise me to keep the various pieces of information they have gained while here a solemn secret."

"You do not ask for much, do you, Mr. Scheermann?" asked Doctor Rock sarcastically.

"Not much, but then you forget that I am God. I have even condescended in asking at all. Gods take; they do not beg—for women."

"I cannot see clearly with these glasses," whispered the doctor. "How many stakes are there down there? Five. Then you can save one for me, and if you can be considerate enough, you can give me the stake next to Mr. Sterling Powers, so that our last hours may be spent together."

"So that is the way the wind blows?" sneeringly asked the scientist.

"That is the way it blows. With death near, it blows away many of my doubts. It blows hard enough to even remove the effluvium from you and your life. I see you as just an old man, a pitiful old man, who might have been somebody, but who has sold himself to the devils of life. I think that you are insane, Mr. Herman Scheermann."

The German looked at her. His lips tightened till they became just one white line.

"You are a remarkable woman," he finally answered. "Had we met in our youth, we would have faced the world together and accomplished wonders. I like to

do ladies a favor, so I will make it possible for you to be near Sterling Powers—at once." He shouted an order in the native language and from the brush two men sprang, seized the woman and carried her away.

Helen Brown took the opportunity to spring on him. It was her ambition to hurl the two of them over the side of the precipice. She nearly succeeded, but help came in time, and the dragon flies lost a meal. After a struggle, she was subdued and held tightly by two of the guards. Breathing heavily from her exertion, she cried:

"You can tie me on the last stake!"

Scheermann brushed the dirt off his linen suit.

"What a devil you are, Miss Brown. How fortunate that my Jap is muscular. You will attend the festival of the full moon but you will not be tied to a stake. That night you will be married to my heir. The ceremony will follow the feeding of the representatives of the God."

"I will not live to see it!"

"Oh! But you will. Suicide? Nonsense! You are too young for that. Wait till you see the Jap. He's a nice fellow."

CHAPTER XV

Days Pass

THAT evening Miss Helen Brown took supper with Herman Scheermann and his first assistant, Nogi Sakio. The gentlemen were dressed in immaculate evening dress and Helen Brown, having made a complete inventory of the clothing that was in her room, had selected a white transparent velvet that harmonized well with her sunburned skin. During the afternoon she had done a lot of thinking. She realized that the three men were somewhere, helpless, otherwise they would have made an appearance before this time. She also knew, almost certainly, that her friend, Anna Rock, was with the men. The German had sent her there and she realized now that much of what he said he meant.

Of the entire party, she was the only one at liberty and able to do anything. There were some avenues that offered help and possibly escape. Could she reach the hydroplane and send an S.O.S. over the broadcaster? How about the Jap? If he loved glory and wealth and power and had to wait till the old man died, then perhaps he might be induced to kill Scheermann and let the party go, provided they promised to keep his secret. Or it might be, if only she could get a weapon, that she could kill them both. Then she would have to find the rest of the party.

One thing she determined—that she would show no fear. She could kill herself at any time. If she had to see her friends devoured by those giant dragon flies, she would face it and then die. She was not sure how, but there would be a way provided. And once again she worried over Timothy Jones. If only he were here. He had deliberately stayed away. They had invited him to join the expedition, and he had decided to remain in Shawnee and sell stockings. He knew the danger. He must have known the danger that they were going to be in, and he had kept out of it—and let them go. Had he warned them? It seemed that he had, but they had not believed him. That was what had hurt his pride—their constant thought that he was lying to them. He was a peculiar man. At times capable and at other times a fool. She was a college graduate and he an ex-grocery clerk! And now those differences were all leveled away, and in a week she would be dead. Anna would be dead. So would Powers and Packard and the nice Captain Lewellen. And Jones would stay at Shawnee and sell hose and serve tea in the afternoon to ladies from Philadelphia and New York, who were hunting new thrills.

At the supper, her conversation was sparkling. No one would have known there was a cloud on her mental horizon. She was witty; she laughed at the Jap's stories. She talked botany with the German. At eleven, they left the table. Nothing had been accomplished.

The next day was a day of similar failure. She took a sudden interest in silkworm culture. She allowed herself to be escorted through the mill by Sakio. She finally asked Scheermann to take her over to the valley where the worms were fed. A picnic was planned. She was carried over in a hammock on the shoulders of sturdy natives. Sakio walked gallantly by her side. She flirted with him. In the valley of mulberry trees she saw the worms in various stages of growth. She saw cocoons being spun. On the way back they passed a party of natives, carrying the cocoons to the silk mill. Two men carried one cocoon, slung from a twenty-foot pole. An extra wide path had to be cut through the jungle to allow them lots of room. Sakio explained that the least injury to a cocoon resulted in the loss of many yards of silk thread.

They were alone part of the time and Miss Brown, without a tremor, suggested that Scheermann be killed and that Sakio reign with her as his Queen. He laughed as he replied, "I will anyway when the Master dies. Why be precipitous?"

He treated it as a joke. She laughed away the idea that she was in earnest. She even allowed him to kiss her hand. They came back happy. That is, Sakio was happy. Helen Brown had played one of her aces and lost.

Meantime, the four were existing in the pit. For one hour of the twenty-four the sun, shining to the bottom, made life almost unendurable. The rest of the time the temperature was comfortable. At night it was cold. Food and water was sent down twice a day. The four were sure that they were going to die, and each spent the time prior to that death in his own way. The Professor made a study of the ants, flies, beetles and centipedes that lived with them at the bottom of the dry well. Captain Lewellen wrote a daily entry in his diary. It was his hope that in some way this would survive him and the news of the last days of the party reach the outside world. With death but a few days distant, Doctor Rock and Sterling Powers threw all formalities to the wind and openly confessed their love to each other.

Three hours each day were spent in discussing every possible angle of the situation and devising plausible means of escape. On the fourth day a message was sent to Scheermann, offering a compromise. There was no answer. Another message offered ransom and complete secrecy. There was no answer.

The men started to dig a tunnel. It was a country of caves, and they thought that they might possibly break through into one and make a night attack on the German; at least they might recover their weapons and escape in the hydroplane. They were still digging on the sixth day. They knew that this was their last one. Careful observations of the moon warned them that it was nearly full.

And then a ladder was lowered to the floor of the well and Scheermann himself asked them to come up. They refused.

"Come and get us," yelled Lewellen.

A dozen natives came down the ladder. They were unarmed. There was a fight. A dozen more went down and at the end the three men and one woman were hauled up by ropes, their hands securely bound behind their backs and their ankles tied together. They were

placed on the ground, in a row, like so many pieces of wood.

"I hate to be rough with you," purred Herman Scheermann, "but you make it so difficult. Why not be philosophers and die like Gods? I will give you each a drink of opium if you want it?"

He was standing too close. Lewellen rolled over and bit him in the leg. The German freed himself and gave the Captain a kick in the face.

"No opium now!" he cried. "Pity is wasted on such swine as you." And then he had them carried to the pit and tied to the stakes. It was early in the afternoon. The sun was still reaching the sandy floor of the Temple, with merciless heat. Above them the fossil dragon seemed to smile sardonically down on them.

Packard and the Captain kept quiet.

Doctor Rock looked over to the stake where Sterling Powers was tied. She smiled at him.

"I am sorry, Dear," she cried in a low tone, "that my hand cannot hold yours in these last hours."

"At least, our love can leap across the sands between us," he answered bravely. "I regret all the lonely years when you were practicing medicine and I was a broker in New York City. There was only the Brooklyn Bridge between us, but we did not know. It takes great events to rouse some people to what life and love really mean. It took this dragon fly and an insane German and even death itself in our case, but now that we really know, I feel that death is not too great a price to pay. I would rather be here knowing that you love me, than be in my New York home and be ignorant of what you might have been in my life. I love you, Anna, and the fact that we are soon to die makes me love you with even greater tenderness."

The two middle-aged lovers smiled at each other.

CHAPTER XVI

The Dragon Speaks

LATE that same afternoon four native women walked into the room that had served as Helen Brown's prison. One talked enough English to make herself understood. She told the American woman that they had come to prepare her for the wedding that was to take place that night in the Temple of the Dragon and that they had been told that all four of them would feed the dragons if anything happened to the lady from far away before the marriage took place. They started in to dress the unwilling bride-elect.

Still later came presents: A beautiful diamond coronet from Scheermann and an equally beautiful bracelet from Nogo Sakio. She was asked to wear both presents. A light supper was served her in her room. Then came six native girls, virgins, dressed in white gauze and orchid,—who were to serve as a singing escort. The day was light when the procession started toward the Temple. Helen Brown was still in hopes that something would happen.

They reached their seats just as the tropical daylight melted into dark. She saw that the natives were beginning to gather and fill the natural rock benches that began several hundred feet above the sandy floor of the Temple. There was still light enough to see her companions tied to the stakes in front of the fossil dragon. Soon, a singing band of natives came with torches, escorting the Oriental who was to be her bridegroom. He was dressed in the robes of his country. He was garbed simply, in silk that was made on the plantation—silk that would last a thousand years. He wore some jewelry. His guards were armed with swords and rifles. They also, as befitted their station, were splendidly arrayed in a uniform only used on gala days.

It became dark. Strain her eyes as she might, Helen Brown could see nothing. Above her there were stars; below her, a void. She knew that nothing would happen till the full moon, directly above the crater, would illumine it with a glory that only comes from the Mistress of the Night. Till then she could shut her eyes and pray. But she could not keep them shut. The tension was too great. After what seemed hours, she opened them and asked Sakio what time it was. He replied that it was eight. Would the lady take some champagne or orange juice? Some was here for her delight, served on crushed ice. Helen thought of those people tied to the stakes and replied that she did not care for any.

In the darkness, the fossil dragon fly began to glow till it was entirely distinct, something separate from the rest of the rock. The two eyes beamed like electric lights in red globes. She mentioned this to Sakio.

"I think, Madam, that it is radium. Perhaps the eyes are emeralds. The God has been worshiped for many centuries. I have been here two years, but I have never cared to examine the Dragon God closely. I have no religion. I am what is called in your language an atheist. Had I the faith of my ancestors, I would not be here. I stay here, in this Temple, and watch the sacrifice, because I am a part of the machinery. Perhaps some day the Master will make me the great part of the machinery. Meantime, I follow the customs of the community."

"Do you approve of all this?"

"What difference does it make! It is evidently necessary. By these means the Master has ruled. By such means I will rule when my time comes. The matter of belief, of approval, does not play any part. These men die tonight. If not tonight they die later. One of your religions says there is a program and that when your turn to die comes, you die. The God wills it. Is there much difference between such a God and this one?"

And now the moonbeams fell slanting on one face of the rock wall and a few of them reached the sanded floor. It was the time for the song, and after the song, for the words of wisdom, the orders from the Dragon God. The song that the natives chanted was very old. A few instruments kept the time and carried the melody. Sakio, apparently anxious to entertain, whispered to Helen Brown:

"Ancient stuff, Lady. Very ancient and honorably old. The Master has found signs of venerable life around here. Perhaps a hundred thousand years ago men sang here to the God. Perhaps he used the same music. Very interesting. We play a small part with our few years of life. Bah! I am a fatalist. Why fight and struggle against the inevitable?"

The song ended and a dark silence brooded over the Temple. Then, in a sing-song low tone, the Dragon God spoke. All that he said was in the native tongue, a language equally well understood by the natives, Chinese and Japanese who heard it. For what seemed many minutes he spoke, and as he gave his orders, the moonlight flooded more and more of the pit till at last the entire enormous crater was illumined. Then the voice ceased.

"The God tells them to sing and be gone," whispered Sakio to his future bride. "He says that it is not the right night. That nothing shall be done till tomorrow night. The God says that he is displeased with the appearance of the sacrifice. They should have been washed and garlanded with flowers. He directs that they be taken from here and properly cared for. Peculiar? What difference does it make if they are to be eaten anyway? He says we are to be married tomorrow night, and that as the worshipers leave, they are to throw their flowers at your feet. I have seen

several of these worships, but never have I seen this. Perhaps the God grows old?"

The natives began to sing the same old song as they left the Temple. One by one they passed the stone bench on which Helen Brown sat and placed their flower at her feet. Soon she was nearly covered with scented orchids, lovely passion flowers. They flowed past her and partly covered Sakio. Then the singing died away for sheer want of singers, and up to the two, sitting by themselves with their guards of honor behind them, came Herman Scheermann. He was dressed in white linen. His beard was perfectly trimmed. A snow white turban decorated in front by an enormous sardonyx covered his head. The moonlight was intense. His face could easily be seen. He wore a worried smile. Before Miss Brown he made a deep bow, and said:

"I salute the happy pair. A marriage is made in Heaven; so you are really man and wife though the ceremony will not take place till tomorrow evening. What a capricious God our Dragon Deity is! He wanted his victims washed and perfumed and garlanded. Think of that, Miss Brown. Or should I address you as Mrs. Sakio? At the same time, the Dragon is a diplomat. I am but his servant. He bade me give out clothes, food, new rifles. He advised me to give a holiday and for one month to abolish my law in regard to head hunting. No wonder the worshipers were glad to delay their entertainment for one more day! Suppose we go back to the house? Sakio, I am sorry to keep you from your bride tonight, but duty calls. I had a serious message from the coast today. It seems that one of our silk carriers is not true to his trust. I want you to take men with you and bring him here. Tomorrow we will feed him to the Dragon. I have written all details on this paper. Take it, and if you prize my friendship and the love of your bride, be sure to come back tomorrow evening—with your man."

The worried Jap bowed and took the written order. He kissed Miss Brown's hand and started to leave. Scheermann called after him, "You might as well take these men with you, Sakio. They are all good men. I will escort your bride to my residence—I and the band of singing girls. I have ordered torches sent to me."

So, with torch bearers in front, singing girls behind and Herman Scheermann by her side, Helen Brown walked back to the palatial residence by the lake. Her mind was a whirling swarm of questions. What had happened? What good would it do if it all had to be gone over again tomorrow? At last she arrived at a conclusion which seemed perfect to her. Scheermann had done all this to increase their torture. He was a man who delighted in doing these things and doing them perfectly. That was it. He simply wanted to drive them a little closer to the edge of total despair before the end actually came.

Once in the house, Scheermann dismissed the singing girls and suggested to Miss Brown that she go into the parlor and there wait for the rest of the party. A supper would be served later on. He had ordered it. It would take some time for the other four to wash and dress, but as soon as they were ready, they would eat. Would she mind eating in her bridal clothes?

An hour later Doctor Rock walked into the parlor. The two women flew into each other's arms, but neither shed a single tear. The three men followed, dressed in the clothing that they had worn when they left the ship in the hydroplane. Around their waists were cartridge belts and their revolvers were in their holsters. They had shaved and washed, and although thin, seemed none the worse for the mental torture that they had undergone. Scheermann bowed to each one in turn and asked that they precede him to the banquet hall.

"You will excuse the supper?" he purred. "I thought there would just be three of us, but Sakio had to attend to some matters for me; so, even with the addition of the four of you, we will only be six. I think there will be food enough. I have asked that all the viands be placed on the table and have dismissed the servants for the night. This is a holiday night for them. They go to the forest and sing and dance and make merry and I do not want to spoil their happiness. So the six of us are alone. You gentlemen need not be afraid tonight. In order that you may feel at ease, I directed that your weapons be restored to you, also the necessary ammunition. Now, let's eat."

CHAPTER XVII

The Explanation

THERE was very little conversation during the greater part of the meal. In spite of the absence of servants, there was a marked restraint on the part of the five guests of Herman Scheermann. The men kept their eyes on him. Now that they were at least armed with their revolvers, they were determined not to face death again at the stake. They were each of them willing to die fighting—but they did not want to serve as a meal to monstrosities without being able in any way to defend themselves. Scheermann seemed to be the only one who was really at his ease, though he did not say much till nearly the end of the meal. Then he pushed his plate to one side and asked for their attention.

"My position in this community," he began, "is a very peculiar one. For thirty years I have ruled probably the greatest aggregation of desperate men that the world has ever seen. One hundred per cent of my men are fugitives from justice, having committed every possible major crime. They have come to me because they know that I will never surrender them to justice. In order to make them good servants I have provided them with women, some native, others imported from Asia. With this class for followers, I have done some very remarkable work here.

"But they are a hard class to rule. There have been attempts to overthrow me. Once I had a very difficult struggle to win out. After some experimentation, I decided to add to the colony a tribe of native head hunters. They wanted heads, and often I had heads to give them—heads alive and on the right shoulders. I was able to use them to keep discipline among my jailbirds. If any fugitive became too hard to handle, he became a victim for the head hunter. Clever?

"But it was the organization of the monthly festival and the development of the giant dragon flies that finally made my power supreme. All men lust after blood and cruel sights and I gave my followers their hearts' desire, in this instance, at least. They became fond of the sights which attended the feeding of the representatives of the Gods and finally I swore them to a blood vow—that all strangers entering the territory should be sacrificed. So when you came they expected that you should go the way of all strangers. Had I shown any weakness, any hesitation, I would have had difficulty in controlling them. I might have lost my head. Consequently, I used diplomacy and made them think that your death would be the usual one. And when the time came, I made use of the voice of the God and caused a postponement of twenty-four hours."

For a moment he paused and seemed to fumble at his belt. Then he pulled an automatic and fired three shots into a curtain, covering a doorway. Running up, he jerked this curtain loose and a dead Chinaman dropped to the floor.

"I saw the curtain move and guessed we had an eaves-

dropper. He heard what I said. Had it gone through the camp, how long would you have lived? Fortunately, all the servants are on their monthly debauch. This dead man understood English. I think that he was doing this at the request of Sakio, but perhaps I misjudge the Jap. Anyway, I have given you a few hours of liberty. I think that your hydroplane is in as good condition as it was when you came here. I would advise you to go down at once, see that the motor is running and that you have enough gas. I will give you some if you need it, and just as soon as morning comes and the day dawns, go back in a direct line to the capital. Start your steamer and go. I will tie myself up and tell my people that you took me unaware, beat me and made your escape."

"That is mighty fine of you, Mr. Scheermann," commented Doctor Rock.

"Just the courtesy one white man owes others of his race. I never have gone completely native."

"If we are going to leave in a few hours, I ought to go down and see how the motor is," said Captain Lewellen. "Suppose we state our position plainly. We came of our own accord and we are leaving through the courtesy of this man. I do not recall that we have made any promises to him."

"No promises are necessary, Captain. I have always been able to care for myself. But I agree with you that no time is to be lost in preparing for the return trip. Suppose we go? Miss Brown, I will have to ask you to wear that wedding dress and take the jewels. It will make my story to the natives and Sakio more plausible."

Down at the shore they found the hydroplane exactly where they had left it. Apparently, it was unharmed. They reached it at once, but it was four before the Captain announced that he was ready. Even then some more gasoline had to be carried down. The three men and the two women made themselves comfortable, and then Scheermann started to say goodbye. He thanked them for the kindly way that they had acted. He shook hands with the ladies and then, just as he was shaking hands with the Professor, Captain Lewellen hit him on the head with the butt of a revolver, dragged his unconscious form over the side, hog-tied him with a rope and started the engine. As the dawn came over the lake, the hydroplane rose from the water and started on a direct line over the forests to Sandakan.

No one said a word on the return trip. The capital was sighted, the steamer located in the harbor. By a fine piece of landing, Lewellen brought the hydroplane alongside the steamer and shouted for O'Malley. That startled individual came on deck with a tin of coffee and a sea biscuit in his hand.

"I swear!" he yelled, dropping the coffee and the biscuit. "Here are the folks come home alive and another one with them!

At the captain's orders, a rope was lowered and the unconscious Scheermann hauled on deck.

"A job for you, O'Malley," said the captain. "Keep this bird safe."

CHAPTER XVIII

A Conference with the Governor

WITHOUT the loss of a minute, Captain Lewellen had the sailors row him to shore. He made a direct line to the governor's mansion and nearly had a fight with the butler who refused him admission, because the governor saw no one till ten. However, the matter finally reached the right person, and word was sent down to have the captain stay to breakfast.

The captain could hardly wait till coffee was served. Then he blurted out, "General Wood! We had rather a bad time of it, but we are all back, and I brought with me the biggest criminal you ever saw. He is the head of that gang of criminals up there and I think that just as soon as you can do so you had better go up there and clean them out. It is a long story to tell you, and I do not want to spoil your breakfast, but we have enough on this man to hang him a dozen times. He came within an ace of having us killed and eaten, but for some reason lost his nerve. At the last moment I hit him on the head and brought him along with us."

"Well, anyhow, I am glad you are all back. It was a foolish thing to do, captain, especially to take the women with you. I told you that it was next door to hell, but you would not believe me. Finish your coffee and then I will go right back with you to the steamer. I want to see this man. Scheermann, you say? No doubt I have seen him a hundred times and not known who he was. Are you through? Suppose we go?"

Two hours after he had left the steamer, the captain was back again, and with him General Wood. The ladies were congratulated on their escape and the men mildly scolded for going into such danger. Then the governor asked to be taken to see the prisoner. He found him in one of the cabins, conscious, but still tied, with O'Malley watching over him with a revolver.

"So, you are Scheermann?" asked the governor.

"At least, I am still alive. If that blow had landed on my scalp instead of on my turban, it would not make any difference now what my name is or was or will be. Glory! How my head swims, and a bump there as large as an egg. Who hit me? Was it Doctor Rock?"

"No, I hit you," answered Lewellen. "You are either a criminal or an insane man. In either case, you had to be delivered to the authorities. This is the governor of North Borneo, General Wood. I am going to place you in his care."

"Anything to say, Mr. Scheermann?" asked the governor.

"Yes. Are you going to prefer charges against me?"

"Not personally. I do not know anything about you. But I will give full credit to anything this gentleman may prefer to say."

"Well, am I under arrest?"

"You are."

"Then, please take me to land and put me in a safe place. There are people, even on this ship, that would kill me if they had a chance. You do not want to see me murdered, do you, Governor? You do not want to see a dagger in the heart of an old sick man, do you?"

The governor turned to the captain.

"Take those ropes off him. I will take him back with me and be responsible for him."

"Be careful, General. He is a desperate man."

The governor laughed.

"I am accustomed to danger. I used to be heavyweight champion at Oxford. Do you think I am afraid of a little old man? Come now, liberate him. When you are ready to prefer charges, you will find him in my care."

"I will be over right after dinner."

"Fine! This man and I will be in my office at that time. Suppose we say two o'clock? Perhaps you better bring the whole party so the prosecuting attorney can hear every side of the story."

As the boat neared the shore, Scheermann whispered to the governor, "Can I see you alone for a few minutes?"

"See here, man. No rough stuff. I am armed and will shoot at the first false move."

"Oh, I know that," moaned Scheermann," and it's not bribery, either. My head is aching so I can hardly think, but there is something I want to show you. I think you ought to know it at once. Make it awkward if you wait too long. I cannot talk much with this headache, but you can see for yourself."

They went into the governor's office and that worthy dismissed his secretary. Scheermann opened his white coat, took some papers out of a pocket, handed them to General Wood and collapsed on the floor.

AT two that afternoon the party of explorers arrived at the stately mansion of the governor. They were shown, with great ceremony, into the executive offices, and punch was served to the men and tea to the ladies. After some informal chatting, the governor proposed that they start with the business of the meeting, the preferring of charges against Scheermann. Stenographers were brought in, the prosecuting attorney and several other lawyers were called and finally Scheermann himself, a little pale, but almost recovered from the blow that had so nearly cost him his life.

While the stenographers rapidly took complete notes, one after the other of the five companions in this expedition that had so nearly cost them their lives gave statements of the incidents of the days while they were away from Sandakan. Doctor Rock was especially careful to give full details in regard to the silkworm industry, the breeding of the giant dragon flies and the threat that these enormous creatures had for the human race.

"Fortunately," she concluded, "we have secured Scheermann, but his chief helper, the Jap, Sakio, is still at large, and there are thousands of eggs that can be dropped into the swamps and rivers by anyone. I feel that these facts should be given careful consideration and no time lost in sending a large air force to these caves to destroy the eggs, kill the living dragonflies and, for all eternity, rid the human race of this flying threat."

"I think that is a very good suggestion," agreed the governor, heartily. "I will put it in force and will ask Captain Lewellen to be good enough to serve as the guide. I think that we have sufficient details to make a satisfactory charge against Scheermann and the Jap, Sakio. Unfortunately, the Jap is not here and I cannot proceed against this man whom you call Scheermann. He showed me some papers this morning that put a new light on the matter."

Captain Lewellen jumped up from his chair and threw his right hand into the air, as he cried, "I do not care what he told you, General Wood! Whatever he said was a lie! He is the most clever criminal I ever met. If there is any chance of his pulling the wool over your eyes, I will kill him myself, right here and now. Damned if I don't!"

"Now, Captain, calm yourself," urged the governor. "I am willing to admit that you had a hard time and were nervous and all that sort of thing, but let me tell you what the right of this is. This man is not Scheermann."

"Not Scheermann?" cried Doctor Rock.

"No. He is not Scheermann. He is just dressed in Scheermann's clothes, and he has on a beard to make him look like Scheermann. He showed me his papers and established his identity, as far as I am concerned. He is attached to the British Foreign Office and was assigned, by special request, to the clearing up of certain matters connected with North Borneo. I was not notified of it because it was thought by the Secretary of Colonial Affairs that the fewer who were in on the thing the better it would be. I want to introduce to you Major Percy King of the Foreign Office. Major, perhaps if you took off your beard and wig and put on your glass, you would convince them of the difference between you and Mr. Scheermann. Suppose you retire to my inner office and make the change?"

In a few minutes the mystery man came out. He was no longer the old German, but a rather youthful, good-looking chap, with a smooth face, black hair, no beard and a monocle screwed into his left eye. He stood rather bashfully by the door, as he remarked:

"Happy to meet all of you. Sorry we had such a mess of it, but I was all on my own and had to go slow. Good we got out alive."

Captain Lewellen walked over to him and looked at the bump on his head, and then the flyer showed his real manhood.

"Sorry I biffed you one, King, my lad," he said, holding out his hand.

"That is all right. Stop thinking about it. Had to be done. All in the game," replied Major King, as he took the professor's hand and shook it heartily.

"And now, Major King," said the governor, "tell your story. I know our friends are anxious to hear it."

"Not much to tell, General. I went up there and looked around and found out that Scheermann was in the habit of talking out of the fossil dragon's head the night of the full moon. I had studied the old fellow a lot; so, up I went into the cave, right back of the fossil head, and when the German came to do his mungo-jumbo work, I had an argument with him. After that, I did the talking. I put on his clothes and some false hair, and you know the rest. I knew Scheermann had spies here; so I wanted to represent him as long as possible. I want Sakio to think Scheermann is a prisoner. That is all. I am sorry you men had such a hard time, but it is all over now."

"Just one question, Major King," interrupted Sterling Powers. "You have not told us where Scheermann is?"

The major dropped his eye-glass, put it back on, stroked his little mustache and looked peculiarly inane.

"By Jove! I overlooked that. The German? Why, after the argument, I left him in the cave. You see, he was dead. I had to get rough. He would not be safe otherwise."

He scratched his head.

"Peculiar. Never thought of it till you asked me the question. Glad you did. Might have failed to put it in my report. Been a bad blunder. Kill a man and then forget it. Must have been the blow on the head."

There being nothing more to do the Americans started to go back to their steamer. The governor insisted that they return that night for supper with him. They did so. All dressed in their best, and Miss Helen Brown, because she had nothing prettier, wore the dress that she was to have been married in; also the jewels that had been given to her. At the table, she had Major King on her right and Captain Lewellen on her left. The conversation was mainly on the left. The major seemed to be lost in thought. After supper, the party walked through the governor's gardens. Major King asked Miss Helen Brown to walk with him. They had hardly started when they met Sterling Powers and Doctor Rock, who were announcing their engagement and receiving the hearty congratulations of everyone.

At last Miss Brown sat down on a marble bench. The major stood in back of her. He dropped his monocle.

"I am glad it is all over, Miss Brown. This is the last piece of work I am going to do of this kind. I am wealthy and I think that I should go into some less dangerous business."

"Have you anything in mind?" asked the lady.

"Yes. I thought that if I could be appointed a

manager of an A and P store I would be happy in the work. Selling hose is cleaner, but I like to see the little children run in the store for bananas and the old women come in for pig liver and butter substitute."

The woman almost jumped in the air as she shook the man by the shoulders and cried, "Timothy Jones!"

"Yes, Miss Brown, always Timothy Jones to you. And now there is something I want to tell you, but I am afraid."

"Why are you afraid, Timothy?"

"I feel that you would not believe me. So many things I told you you never did believe."

"Why not take a chance and tell me anyway? Why not try it?"

"By Jove! A sporting proposition! I will. *I LOVE YOU!*"

"I believe *that*," said Miss Helen Brown, slowly, falling into his arms.

THE END.

Reclaimers of the Ice

By Stanton A. Coblentz

(*Continued from page* 217)

my feelings more fully, she chided me with a gracious, "Not now, Rodney. You must save your strength. Not now——"

"But, Ada——" I began. And then, struck by a tormenting thought, "How—how about Allenham?"

The gentle light died out of her eyes, and her lips twitched bitterly. And she drew herself up to her full height, and, with an effort at self-control, requested, "I want you to promise me one thing, Rodney. Never, never, mention that name to me again!"

But I was to have no cause to fear Allenham's rivalry. This discovery came with such suddenness that it was an event in itself. For several hours we had been traveling across a hard, snowy surface, guided by the light of a moon almost at its full; and, as usual, we had been following the clearly marked trail of the ice-cruiser. But all at once, to our astonishment, that trail ended. Reaching the border of a narrow open lead, it broke abruptly short; and neither to the right nor the left, nor on the snowy opposite bank, was there any trace of the heavy tracks!

Dismayed and bewildered, and at first not able to grasp the dread meaning, we came to a halt, searching on all sides for signs of the vanished machine. But not a trace was to be observed, although here and there the ice did show sinister-looking rifts and cracks. And not a trace was to be found when, later, we scoured both banks of the lead for many hundreds of yards!

Yet it was a long while before we could bring ourselves to face the terrible truth. The ice-cruiser, many times bulkier than the dog teams, had been too heavy for the thin ice at the rim of the lead; and the surface had given way, plunging the cruiser and its passengers to the bottom of the sea!

BY the dark, tomb-like surface of that narrow lane of water, we paused to offer up a prayer for the souls of our lost comrades, and in particular for him who, indomitable even in defeat, had found a fitting resting-place in the cold bosom of that North he had striven so valiantly to conquer.

And then, while the teardrops froze on the cheeks of one of our number and the rest of us looked on with stern, set faces and speechless tongues, we snapped the lashes above the dog-teams, and continued our long, long journey. . . .

Seventeen days later, our food exhausted, half of our dogs dead from hunger and fatigue, we struggled, a bony, spectral-cheeked band, to the rocky coast of Wrangel Island, where a small colony of Russians found us, and warmed the life back into our frozen bodies.

And from there, the following summer, a whaling schooner bore us to Nome; after which, in due time, we took passage for New York, where I now sit writing these memoirs. As my pen flies across the paper, Ada is at my side, nodding to me with an occasional word of admonition or advice; and both of us, like our friend Norwood, who is preparing for an expedition to the Antarctic, agree that our story would have had a different ending—had Rathbone chosen to settle on any spot except Desolation Isle. For the principles that guided him, we hold, were eminently sound; and some day, when there comes another man of vast energies and originality and boundless resources, the experiment which he attempted shall be renewed elsewhere, and then at last the proud Arctic shall yield to the genius of man, and the once-frozen wastes offer food and habitation for the teeming millions of people living on the earth.

THE END.

Readers' Editorials Prize Contest

THIS being your publication, you, the reader, have certain ideas, not only about this publication, but about scientifiction as well. The editors believe that their mission is complete when they select and edit stories that go into the making of this magazine. On the other hand, they feel that you, the reader, have a more detached view of the magazine itself, and that very often your ideas as to the magazine, and as to scientifiction in general, are not only valuable, but are original and instructive as well. For that reason it has been decided to print the best letter—about 500 words—which can be used as an editorial, on the editorial page and to award a prize of $50.00 for any letter so printed.

The letters which do not win the Quarterly prize, but which still have merit, will, at the discretion of the editors, be printed in the "Editorials from Our Readers" Department, newly created in this magazine. The "Honorable Mention" editorial is printed on page 287.

Laudatory letters containing flattering remarks about the stories themselves, or of the magazine, are not acceptable for the editorial page. We want inspiring or educational letters, embodying material which can be used as an editorial along scientifiction themes.

Remember, it is the idea that counts. A great literary effort is not necessary, as the editors reserve the right to edit all letters received in order to make them more presentable for publication.

Remember, too, that anyone can enter this contest, and everyone has an equal chance to get on the editorial page of AMAZING STORIES QUARTERLY hereafter.

This contest will continue until further notice. Contest for each issue closes the 20th of the second month preceding date of issue—viz.—contest closing date for the next issue is the 20th of May.

The RED RAY

By Dan Fabers

FROM where David Saunders sat, high in the tower of the new Electro-Photo Building, he could see the old Times Square Building and above it the old Paramount. He was watching the clock at Times Square, for in ten minutes he would have to radiophone the house on Long Island that he would be home for supper. As he watched the face of the clock it seemed to bulge forward, and then plunge to the street—and the building seemed to rock like a metronome. The tower crumbled first—crashing down and leaving bare, gaunt steel—then the face of the structure crashed outward, and plunged down to the pavement.

The crash and reverberation of it reached him, thundered about his ears, tore at the windows, smashed them and flung the marble bust on the corner pedestal to the floor, in a shower of dust. The very chair under him trembled, and pictures fell from the wall. He sat stunned. The thing was impossible. Buildings didn't just collapse like that, go to pieces in an instant—belly forth—belch brick and mortar.

After the first terrific crash and boom of the falling building other sounds reached him. The groan of mighty steel beams—twisted and wrenched by some gigantic force, the concerted shriek from those below—shrieking in agony and terror—crying out against this thing that crushed down upon them, the whine of snapping cables—the rumble and roar of the settling of buildings—then an amazing and momentary silence.

Where the "Times Building" had stood was now a gaunt height of twisted girders, stripped of brick and stone and plaster—ugly and bleak against the other buildings—a scarecrow of steel. What could have caused it? What did it mean?

David's analytical mind immediately discarded the theory of earthquake, for no other building was touched. For the moment that same analytical mind could not take in the fact that under that mass of stone and steel lay the remains of hundreds of human beings, crushed in an instant. His mind, like the minds of many scientists, was concerned with the "why" and the "how," rather than with the physical result. Why had the "Times Building" suddenly dissolved into its several elements, and fallen?

As he watched, the Paramount structure writhed from its very foundations, twisted in some gigantic convulsion, bulged its great stone front—and crashed to the streets below, leaving another gap of twisted steel girders where only a few seconds before, a great building had stood. Next an old hotel across the Square shook and quivered, and became a shapeless mass of broken stone and mortar.

Would the building he was in be the next victim in this awful cataclysm? Would the new "Electro-Photo" be ground into a thousand pieces and hurl itself down through space? Another structure crashed to the earth? Then the street itself seemed to rise in a mass of brick and dirt and asphalt. The steel cars of the old subway looked like a stricken snake.

Was the city mined? Had some fiendish enemy taken this method of subjugating the country? Was some arch-fiend working his will on the City of New York? Then his mind caught on an explanation. Bombs! His eyes sought the sky, but nothing was visible. No enemy aircraft was there. No sky dreadnought that might hurl this terrible death upon the city could be seen. Yet, wait. As he looked, there appeared a fleck in the sky that sped downward, growing larger as it came. It touched a building less than a block away—and an instant later its front belched forth, spreading destruction for men and women—casting broken steel and wood into the streets. His eyes scanned the sky again. Again that speck. Another building twisted and writhed—shook itself, and was flung to the ground.

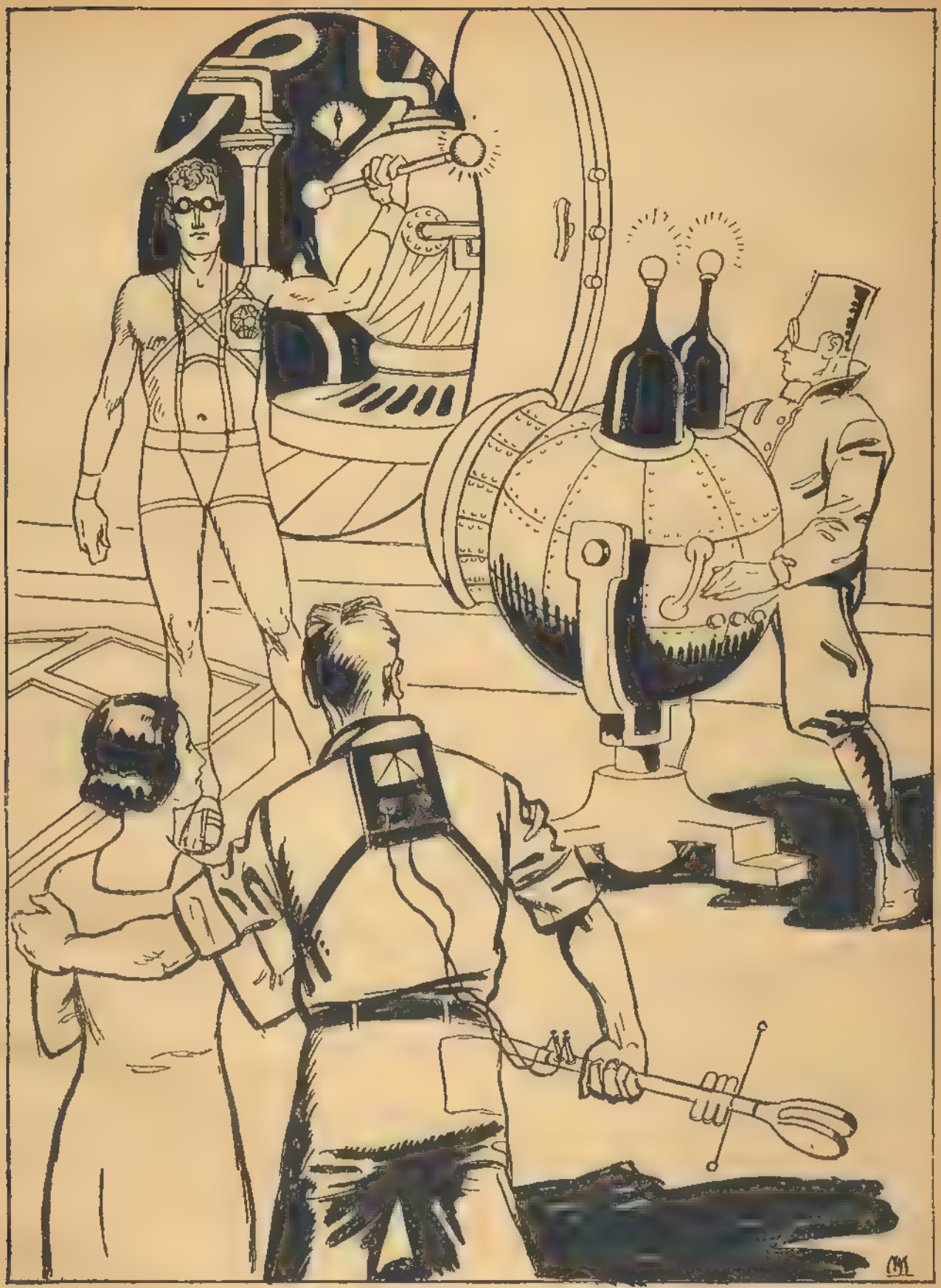
Weird as it might be—uncanny—impossible—there was only one explanation. His mind would not accept it. Yet it must be true. It had to be true. It was true.

NEW YORK WAS BEING BOMBED BY AN INVISIBLE AIR FLEET.

DURING the last war, we got an inkling of the possibilities contained in airplane warfare. Strangely enough, although we are talking and maybe thinking "peace," new discoveries and inventions of more and more destructive weapons are going on apace.

This story is particularly interesting because of its timeliness. Just now aviation seems to be the subject most pregnant with possibilities. And Mr. Fabers suggests many ingenious new ideas that might effectively be used in connection with airplanes.

DAVE snatched a telescope of his own invention from a wall case that had stayed in place throughout the bombardment and dashed for the elevator. Crowds in the corridors pushed and shoved one another in frantic effort to escape from the building. The elevators were crowded and jammed to capacity, and the gaunt, white-faced boys who stuck by their duty urged those who could not get in the cars to use the stairs. In the mad rush for the steps a man was pushed down the air well, and his shrieks came eerily upward. David watched the surging mass as it dwindled. He could not get up the stairs, nor was there room for him on the elevators, and his own private car did not run above that floor. How foolish, how stupid these people were to rush into the streets, where death from falling beams or crashing stones was almost certain. How much wiser to wait within the comparative safety of the building! If the building were struck death would meet them just as surely as if they stood in the streets below.



¶ *A man leapt from the side, and ran toward the group. It was Jahad.*

He waited, perhaps several minutes, before the building was clear, and an empty elevator came surging upward to look for possible stragglers. Another was about to shoot by when he signaled it.

"I want to go up."

The boy stared at him in dumb amazement, but carried him up—far into the tower of the building. At the top, the other elevator waited, strangely silent. The boy at the controls had fainted. The other boy took him down, leaving the empty car. David stood a moment, irresolute, then made his way up the ladder to the roof of the tower. He pushed up the hatch at

the top of the little iron ladder and looked out. The flat square of the roof was deserted.

He perched on the edge of the hatch and put the telescope to his eye, scanning the heavens for that invisible fleet. Not even the powerful night glass, with its specially constructed lens could see a thing in the heavens save wisps of cloud. Now he saw something —or was it just an opening in the cloud. Something was butting its way through the misty bank, and seemed to leave a cylindrical hole behind it—one of the invisible ships. And it was cylindrical! Then there was an unseen fleet in the sky.

At that instant there was a crash behind him, and he found himself hurtling through space, down the shaft which he had climbed. Eight feet below he came to a jarring stop. If he expected the building to dissolve under him, as he had seen others do, he was pleasantly mistaken. The building was solid. Groggily he stood up, then climbed again the ladder to the hatch. Cautiously he pushed his head above the opening until his eyes were on a level with the roof. It had been deserted before. Now men ran across it, hurrying about, swinging strange tools. And they wore a light harness, and their faces were partly covered by a peculiar two-coned set of goggles, not unlike a couple of the little glasses jewelers sometimes fitted in their eyes, when inspecting watches or searching for flaws in gems.

David rightly guessed they were the crew of one of the invisible ships, and that the weird goggles aided them in seeing the vessels. He was correct in believing, too, that one of the ships had collided with the tower of Electro-Photo, and that these men were repairing some slight damage.

One great bulk of a man seemed to be directing the work of the others. He was tall, and very blonde —and the trappings he wore were more ornate than the others', and over his heart there blazed one gorgeous jewel—a thing David took to be an enormous ruby. The language that he used when he addressed the men, which he did seldom, was an unfamiliar language to David. It might have been one of the Oriental languages, but it certainly was not any European tongue, for he knew most of them, and could at least recognize them. It was a language that was both low and musical. What was it? Probably Oriental. Yet the men were not Oriental, either in build or color. They were more nearly Nordic—blonde, with pale, creamy skins—and tall, well-formed frames. He could not see their faces very well, because of the masking effect of the goggles.

Every now and then, with startling abruptness, a man would jump from the invisible ship, apparently materializing from space; or one would step into it—seemingly disappearing the same way. His scientist's mind grappled with the problem. The ship was not merely transparent—for had it been, the men inside would have been at least opaquely visible—it was actually an invisible ship. Now the oval door in its side was open and he had the eerie vision of a room suspended in space—for he could see the interior quite plainly, for an instant. Then the door was shut. He had only an impression of a vast intricacy of tubes and stanchions. Then the hull was coated with some invisible material, or made of it. This last he rejected as improbable. These men probably knew some chemical or paint that gave such high reflective power as to render the mass beneath invisible. Later he was to discover his mistake.

WHILE he was reasoning thus, he was also figuring on a rush attack on the men, and possibly capturing one. But the odds were too great against him. The oval door opened, and from the aperture leaped a woman, followed by another. The two rushed across the roof, almost directly toward him. For an instant he feared he had been seen, but he realized that these women were fleeing from the ship, for the men were dropping their implements to take up the chase at the excited cries of the leader. The first woman, obviously young, cried out as a tall, blonde giant reached for her and seemed to point her finger at the man. He gasped, clutched his stomach, and fell to the roof, blood from some mysterious wound making a puddle on the tiles. Another man made a grab for the older woman, who turned upon him, and struck him with a flute-like instrument she held in her hand. It smashed the uncanny goggles, and battered his face, so that he fell back, moaning. The younger woman was almost at David's hiding place when the leader was about to reach for her. The girl tripped on the rim of the hatch, and hurtled by him, down the eight feet of well. The leader leaned over to look down, and David, from some queer chivalry, knowing this girl needed aid, even if she was aboard the strange enemy, struck at the man with the telescope, crashing goggles and stunning the big brute, so that he fell half into the hole, and lay sagging limply. The fall of their leader halted the other men, so that the older woman scrambled over the prone figure, and scuttled down the ladder.

David caught at the shoulders of the silent figure on the rim of the hatch, and pulled him inside, dropping the man with a dull thud beside the girl. Then, he quickly swung the hatch shut, and bolted it. This done, he hurried down the ladder and stood beside the figure of the girl. The old woman was moaning and wringing her hands, and speaking softly in that unknown tongue. David bent over the girl, saw she was only stunned and lifted her up in his arms. She was amazingly light, even for so slender a form. With her in his arms he hurried from the well, nodding to the old woman to follow. Outside he stood the reviving girl on her feet, supporting her with one arm, while he locked and bolted the door, sealing the leader within the tiny room.

Already he could hear the pounding on the hatch as the men from above tried to batter in the metal door to the roof. He guided the stumbling girl to the elevator which had been left at the top floor, and the older woman followed, grumbling and looking back at the locked door. In the car David turned the girl over to the care of the old woman—almost a hag, he noticed, aged and nearly decrepit—while he ran the elevator down to the floor where he had his suite. Guiding both women out, he shut the door of the car, and pressed the automatic button, which sent the car to the ground floor—a precaution against being tracked by the men above, should they follow down the stairs. Inside the office he bolted the door, and then led the half-conscious girl to a couch, where he put her, a pillow under her head, while he hurried for water into the next room. When he returned, the old woman was chafing the girl's hands and wrists, and speaking softly to her. He proffered the water, but the older woman shook her head, then decided to taste it first. She feared poison, he decided. Having tasted of the fluid, she gave the rest to the girl who opened, what David instantly decided were the bluest eyes he had ever seen.

She looked about, and saw David. At first they opened wide in surprise, but as he smiled reassuringly at her, she returned his smile, and closed her eyes. She would know she was safe, he decided. But he must get these two away from his enemies, who apparently were their enemies also. He spoke to the woman.

"Let's go—my elevator is here."

The woman only stared at him and shook her head. He tried French, German, Norwegian, and Russian, but each time she shook her head. Perhaps she understood only some Celtic dialect. He tried her on the Mother language—Anglo-Saxon, of which he knew a little—but still the woman shook her head. At last he ran to the door of his private elevator, threw it open and motioned upward. He then pointed to the car and down. Then, with his fingers he made little running motions. The woman understood that, and nodded. She lifted the girl from the couch very gently and helped her to the car. There David glanced at her disordered habiliments, and decided it would never do to appear like that. He ran back, got two coats from a rack and put one around the shoulders of each of the women, after which he sent the car to the basement level. The entire building was deserted apparently. From above, though he had not noticed it, since the accident on the roof, the rumbling and roaring on the streets was still going on, and occasionally even the great building quivered as some bomb exploded close by.

The subway, of course, had been disrupted by one of those terrific blasts. He wondered if the Pneumatic Underground would be working. He hurried his two charges to the gate. The guard was gone and one of the tiny cars was in the station, door open—deserted. Even as he watched, the tube door slid into place, sealing the car into the pneumatic tube. He heard the rush of air as the whirling fans started the car off, then the swish as it hurtled away. The Pneumatic was still working, by some miracle. For he knew that if a leak had sprung anywhere along its segments, the car would not have moved.

THEN the door of the tube slid back, and another empty car stood waiting. Half carrying, half pushing the unprotesting girl, he placed her in the bullet-like car, resting her against the cushions of one of the two seats. The old woman showed no curiosity as the tiny bell tinkled and the double doors slid into place. The car took up its whirr of fans, and began to move. Faster and faster hurtled the car in its tubular track, whisking them away from the city, out toward Long Island.

David wondered if he had done the wise thing in placing these two in the Pneumatic. But he decided that it was as safe, if not safer than the streets, for only a direct shot from above would cripple the system, and on the surfaces, falling bricks, flying particles, anything might strike them and injure or kill them. And he knew this Pneumatic. He had helped design and lay the tubes that wove a net of rapid transportation under the City of New York, to those outlying districts where speed in communication was essential. He had been instrumental in having it laid, indeed, had worked out some of the mechanical features, such as the automatic block system, that permitted the car to travel great distances uninterrupted by pauses for the air locks to open.

But he was not so concerned with the Pneumatic now, for he knew the safety door at the rear would let them out in case of accident, unless the car itself—but he would not think of that. The girl beside him, on the narrow seat, leaned heavily against him, and for the first time he really looked at her. She was young, and, he decided, beautiful. He could not place her beauty. He could not decide whether it lay in the delicate oval of her face, or the soft, creamy skin, or the straight, finely chiseled nose—or in the long lashes that hid those vivid blue eyes, or in that taunting, tempting mouth, half open—childish, yet undoubtedly the mouth of a woman. She was lovely, beautiful, desirable. He stopped himself. She had come from the enemy ship. Might she not be one of the enemy's spies, sent into this territory for . . . what? Again he would not permit himself to think further. He wanted to distract his attention from this lovely creature at his side, so he concentrated his thoughts on the older woman. Certainly she was not the mother of this beautiful girl. Her hair was shaggy, and rusty gray, and her nose almost spatulate; her eyes were dull, though occasionally they flashed a venomous fire at him; her skin was wrinkled, and her cheeks flabby, rather than hollow, and on her chin and upper lip was a gray down. What was she—a sort of duenna? This last had to satisfy him, for no other explanation seemed to suit her. And, as he was to discover later, this woman played the rôle of duenna-jailer.

He leaned forward to the instrument board of the car, and twirled the dial of the radio photophone. Almost instantly the little square of ground glass glowed with light, and the face of Mrs. Parker, his housekeeper appeared.

"I am bringing two guests out for a while, Mrs. Parker. Have the closed car meet me at the Pneumatic."

"All right, sir. Anything special for supper, sir?"

"Nothing particular. I have news for you, too, when I arrive."

"We've heard about the earthquake, sir. And you may be sure it is a relief to see you and hear your voice."

"I'm bringing two refugees with me."

"Anything else, sir?"

"Nothing; good bye."

And he clicked the machine to silence. Both the old woman and the girl had been watching the entire process with interest, and both nodded as if they understood. Then they had seen these things before! Of course, nearly everyone knew of these machines now—they were so widely distributed. He had forgotten that he was no longer a boy; that he was no longer in a world waiting for these things to come. He was a man living in an age when all those hardly dreamt of mechanical improvements were an actual accomplishment.

A moment later they were slowing to a stop, as the vibrating needle of the speedometer told him. The door slid back, and he helped the two women out to the platform. Boyce, the chauffeur, was already there, waiting, and if he felt any surprise at the visitors he did not show it. He merely led the way upstairs to the motor. Like so many suburbanites, David kept an automobile for just such short trips as this, between the station and the house, for to use the helicopter-plane for such jaunts was a nuisance.

Boyce whisked them away, and up the long drive that led to the house back among the trees. Both women seemed intensely interested in the trip, and exclaimed to each other in that low, musical language of theirs. Where were they from? He could not rid himself of the question.

AT the house Mrs. Parker met them, and when he instructed her to find clothes for the two women, she showed only the most momentary glance of surprise, and took them away. Dave himself hurried to his own room, where he would find a bath ready, and fresh clothes. He hurriedly bathed and dressed, and descended to the living room.

Mrs. Parker was waiting for him, and with the privilege of years of service for the family, she asked him where he picked up this peculiar girl and her guardian. She said nothing with regard to their dress.

"Neither of them speak English, David—nor any language I know. Where did they come from?"

That was the very question David could not answer so he told her only so much of the story as she might believe; that a strange plane had alighted atop the Electro-Photo, and that these two, seemingly held prisoners, had escaped. For the rest he stuck to the truth. Mrs. Parker was frankly sceptical, but said nothing more about them, turning from him to show her indignation that he should concoct such a story for her. He called her back, and tried to explain, but succeeded only in getting a crisp statement from the elderly lady.

"I got her some of your sister's clothes that she left behind when she flew abroad last week. I'm sure she won't mind." And it was said in a tone that implied that his sister would very much mind. "I gave the old servant a dress of my own."

At that instant the girl entered the room. If he had thought her beautiful before, she seemed radiant to him now—dressed in one of his absent sister's dinner frocks—pale green, flowing. David thought of her as a sea nymph.

"You are beautiful," he exclaimed, and even though she might not understand the words, at least she seemed to get the import, for she smiled at him and dropped what might have been a curtsy, but with more rhythm, more grace. And as she walked across the room toward him, she seemed to glide softly along, in an effortless undulation. Behind her was the ugly duenna, as David mentally called her.

He knew he must be business-like, in order to determine where this radiant creature was from. He motioned to her to follow him, and asked Mrs. Parker to go, too. Dog-like the old hag followed as they entered his study. There, on a stand, was a globe map of the earth. He led the girl to it, pointed to the painted sphere, and to herself, then to a spot approximately New York. She looked at the globe with a puzzled frown, spun it idly a moment, and then smiled in understanding. She tapped the globe, and then pointed at her feet. He nodded; it was the earth. She threw back her lovely head and laughed. She looked at him soberly, and shook her head. Then she pointed to the globe, knotted her fist, and held it off in space. What could the girl mean? She pointed then with the other hand at herself, then to the fist, and nodded. She pointed to the earth and shook her head.

She was trying to tell him she was not of the earth, but of some other world. Absurd, impossible, ridiculous, preposterous. But then, so were the invisible ships preposterous, impossible. He grabbed a pencil from his pocket, went to the desk and sketched a diagram of the solar system. The girl followed and watched him with interest. She seemed to understand what he was doing, for she clapped her hands, and laughed softly. When he was through, he pointed to the ground, and then to the circle that represented the earth. The girl nodded and ran her finger over the paper, at first seemingly more interested in its texture than in the drawing. Then she pointed to a small circle he had drawn.

"Onad," the girl said, tapping herself and pointing to the old woman.

She had pointed to Mars!

It couldn't be! His mind refused to accept it. She couldn't have come that distance, through that frigid void, and lived. Impossible! But those invisible ships! Should his mind refuse to accept anything after that? He turned to Mrs. Parker.

"She says she is from Mars. Mrs. Parker, meet the girl from Mars," and he bowed ceremoniously. He simply had to accept the thing, but for the sake of sanity he would make a farce of it, as long as he could. Mrs. Parker, who had watched the whole affair, sniffed in indignation and left the room. The girl seemed to enjoy her rout, for she laughed delightedly. The old woman merely stared stolidly at the man and girl.

A gong ringing told David supper was ready, and he offered the girl his arm. She glanced at it in surprise, but took it, and walked with him to the dining room. After her first little show of surprise at the dining table she gave no indication that the thing was the least bit unusual. By George! David had to admire the girl. She certainly had poise. Seated at the table, the duenna behind her chair, she watched the others eat, before she picked up a knife and fork, and, imitating them, ate too.

SINCE David could not speak to the girl, he began telling Mrs. Parker about the disaster in town, omitting the wild story of the invisible fleet, preferring to let her think the city had fallen because of an earthquake. From time to time he glanced at the girl, who seemed to take it all in, even though he knew she could not understand a word that was being spoken. At last the tale was ended, and the girl burst into laughter. Both Mrs. Parker and David looked at her in surprise. What could it mean?

"I am Tiania," she said, in slow English.

So she could speak English after all. David felt like a fool, being caught on some such trick as this.

"No—I did not talk your—"

"Language," he supplied her, and she thanked him with a smile.

"I hear your—" she looked blankly at him—then said "mind."

Could this strange being "hear his mind?" For that word had sprung into his thought as she paused.

"I hear you. . ." and then again she caught the word in his mind—"doubting."

So she could hear his mind!! And she had "heard" him lying to Mrs. Parker. That was why she had laughed.

For some time, in this weird fashion, they talked, he supplying her with words she had not heard, actually, or in the minds of Mrs. Parker or himself; she acknowledging his aid with a quiet smile. The duenna remained silent throughout the entire time, only watching him with those dull eyes, that could flash venomous fire.

All that he was able to get from her, though, was that she was Tiania, from Mars—that the duenna person was Moana, but what her status was he could not make out. Jahad, the girl told him, was at the head of the expedition, but its purpose remained a secret, either through the girl's inability to tell him, or because she didn't know or would not tell him. He ascribed her failure to tell him to deliberate intention.

He then went to the radio photophone and tuned in for the city. Before them on the ground glass of the apparatus lay the havoc of the day. Twisted buildings, gutted theatres, torn streets, and the horror of mangled human beings being taken from the wreckage—the searchlights playing across the scene, like spotlights at some colossal drama. Tiania looked, then turned away. Moana seemed to gloat over the scene, pushing herself closer in her eagerness. Tiania spoke sharply to her in that low, musical tongue suddenly become a thing for command. The old woman cringed, and crept back to her place behind the girl.

A man's voice was talking.

"You see, on the photophone, the destruction wrought by today's earthquake. No lists of dead or injured have been compiled, because so many of the victims were taken immediately to hospitals, morgues and private

apartments. All available doctors in nearby cities are asked to lend their aid. This is a call for volunteer work. New Jersey has responded with 500 nurses and 80 doctors and all her accessible hospital planes. Delaware is rushing as many more to the scene. Pennsylvania, Rhode Island, Connecticut, and other New England states are preparing delegations. The southern states have offered aid, and are making preparation to answer a second call if needed.

"Just a minute, dispatches from the street are coming in. Here is a list of identified dead," and he read on. "This list will be revised every half hour by our special reporters."

"Again—just a minute—Inspector Reeves has some startling information to give to the world, via the radio photophone of the New York Photophone Syndicate. Inspector Reeves."

The scene on the glass switched suddenly from the gruesome spectacle of the street, and showed the lined, seamed face of Inspector Reeves. That face, well known to David, was a mask of anger and worry.

"People of America—this was no earthquake—it is the deliberate planning of some arch fiend. New York, in the early afternoon, was blown up! Some nation has planted the city with explosives and sent these thousands of innocent victims to their graves—indeed, if they all ever get to graves, for many were blown to extinction. Look to your own city. Call every available officer,—every person in this search for explosives in the heart of your own city. No one knows where the unseen enemy will strike next."

David wondered if he knew just how correct he was in his phrase—the "unseen enemy." Too, David knew that in a few seconds at best, if it had not already been done, a thorough and systematic search would be started in every city of any size in the United States, a search which he knew would avail nothing. Yet how could he go to them with his unsubstantiated story of invisible ships from Mars? He would be ridiculed—and it would avail nothing.

The scene had switched back to the streets again, and the man's voice was droning on, telling of the horrors of the afternoon, the suddenness of the attack, and its abrupt end. The attack must have ceased shortly after the fight on the roof. Then David realized what had happened. He held, in this girl beside him, a hostage for the preservation of New York—perhaps, who knows, for that of America!

Soon after the meal the girl, Tiania, sent Moana away, and spoke in that slow halting fashion of hers, groping for the word to express the thought she had. And her accent, soft and fluent though it was—was still noticeable. David liked it.

"Daveed . . Jahad is going to . . . steal . . . this world."

Amazement must have shown on his face, for she nodded. "It is . . . impossible, your mind says. Jahad can . . . poof," she made an explosive motion with her hand—"your whole country. I hate him." And David knew in that instant, from the flash of hatred across her face that she did. "I hate him."

AND then came the sorry tale. David had to reconstruct some of the gaps, which the girl would not tell—or could not.

Jahad, a powerful leader of Onad, the dying planet, had invented the "Gana" or space ship, in which he proposed to come to the earth, make war upon it, and carry back to his world supplies for many years—leaving the earth destitute. Or, he planned to wipe out the population of the earth, or subjugate it, and become the dominant power of two worlds. It was a magnificent scheme. And the worst of it was that it seemed likely to work. Tiania explained her presence on the "Gana" in telling him that her father, ruler of Onad, had opposed the plan as both cruel and unnecessary. He was in favor of a conciliatory treaty with the earth, and for his views, he was attacked by the party of Jahad's men and killed; and she herself was captured. Jahad intended, she believed, to make her his queen in this new world, and had put her under the care of Moana, a slave woman. Seizing the first opportunity, she had escaped, preferring the dangers of a new world to Jahad's embraces—for he had planned that evening to celebrate the conquest of this earth-city by their marriage.

Moana had come with her because of some peculiar literal rendering of Jahad's order never to let Tiania out of her sight. They both laughed over this—David looking into the wide blue eyes that suddenly softened in their laughter, and returned his steady gaze. Dave half rose from his seat to go to this marvelous woman, who, poised and beautiful, adapted herself to a new world within a few hours. He should have remembered that Cleopatra could adapt herself in changes from slave to queen in a few moments.

The two gazed at each other for perhaps a minute, and Dave was part of the way across the floor before he remembered that this girl had preferred a new world to one man's embraces, and he stopped, looking down at her. Did he only fancy she smiled at him in disappointment?

What was the matter with him? How could he let this girl into his heart, when he knew that her people, though they were her stated enemies, were destroying his country? As he was standing there—resolved not to let this girl touch his heart, she stood up, came across the room and stood before him.

"It is . . ." she paused for the word, caught it and finished—"good night." And she turned and left the room, left David a little disappointed at his own resolution. When she had gone, and he had come out of his reveries, he went to the radio photophone and called a friend in the city, to ask about further developments. The answer contained nothing David did not know, and very little that he knew to be the truth; much of it was surmise. The police were still searching for the person or persons who planted the bombs.

What could he do? What was there for anyone to do? These questions and others, many of them centered around the girl, went through his mind all the next day, for he did not return to the city, understanding the need for only such expert aid as was available; all others could only hinder. But most of the questions were regarding the girl—and he kept himself away from her uncanny ability to read his mind, for there were some thoughts there that he dare not read himself. He could not love this girl from another world. He must not.

That night, after supper, she dismissed the duenna again, and they sat together. This time there was less halting and fumbling for words as she talked to him. She came directly to the point.

"You have saved me from Jahad—I will save you from Jahad. This much I can tell you. Those ships are of unseen metal, mined in my own Onad, and polished so no one sees it. An . . ." she stumbled for the word and pointed to the electric globe above his head, "that does that," she finished.

"Electricity?"

She nodded her head. "Only we know more than you. And Jahad can aim it at Onad, and sail away, at the earth and stop—or backward, and travel along."

"You have discovered atomic energy?"

"Atomic energy," the words seemed to mean nothing to her, but she caught the idea within his mind, and

nodded. "We have had it for some time—but it is not what I hear in your mind. It is like a ray that beats against the ether."

IT was uncanny the way this woman could translate her thoughts into his language, yet he realized that words were a simple thing, once the idea was communicated—and she read his thoughts. And since he thought in terms of words, phrases and sentences, it was not so difficult as he first imagined it. The idea was there, in his mind, for her to grasp; and the words were there for her to use. Had he been able to think in some other language, she would probably have answered him in that language.

But they were getting away from the subject, and again she read his mind.

"But, I am to save your country from Jahad. You are a man who thinks in terms of electricity. I can help you only this much. Take this." she reached in the bosom of her dress and held out to him—an empty hand.

He stared at it incredulously. Was this woman playing a joke on him?

"No," she said, "I am not fooling you. There is a piece of that metal in my hand. It is a knife. I know I do not need it, now."

Then she had suspected she might have had occasion to use it? But now she trusted him. He liked the idea that she trusted him. He reached for the knife, and cut his finger on the razor-like edge. Cautiously he felt for the handle and grasped it gingerly. The metal seemed to have scarcely any weight. What could he do with it? Then he realized that here, in his hand lay the deliverance of his country; that, if he could discover some way of making this visible, he would render the ships harmless that bombed New York, for it was the enemies' invisibility that made them such a menace. But what to do? He was already hurrying toward his laboratory when her voice recalled him.

"You are going—now?" Did he fancy a wistfulness in the tone? Absurd. He came back, caught her hands, and kissed them. "Some day," he said, "the world will thank you for this."

"And you?"

"I thank you, now."

"Yes." The tone was peculiarly lifeless, in contrast to her vivid voice that he had known, even for this short time, and, though perhaps he fancied it, there was a hurt in the wide blue eyes. As he hurried from the room he saw Moana in the corridor—that blaze of hate or anger in the sometimes dull eyes.

In his laboratory he was at a loss. What was he to do with this thing he held but could not see! At last he decided to X-ray it. In a few moments he had the proofs before him. The metal might be invisible to the human eye—but the X-ray had caught something, for the plate was burned in ragged outlines. The metal, then, was radioactive. It had, it seemed, almost an atmosphere of its own.

He decided to use the spectroscope to test for elements. Yet, even after that it did not show the spectrum of any of the ninety-two elements. But far up the scale, in what scientists have called ultra-violet—he saw a distinct disturbance. It was then a metal of some unknown element—an element unknown on the earth. Ultra-violet—ultra-violet. He was as much at a loss as before. He knew that the metal was radioactive—that it seemed to have an atmosphere of its own—that it did not come within even the predictable elements of the earth. Atmosphere of its own! Why that would protect it, as well as the occupants in that flight through space! He should have known that it must have some protection against the absolute zero of space. Ultra-violet—ultra-violet—then—if the thing were ultra-violet in color—if it could be said to be a color, invisible—it could absorb the light rays through all that interstellar space; it would not be limited in range as our metals are, and with that aura, or atmosphere of its own, it would help to retain the heat of those light rays. The idea came to him—vividly, astoundingly; it was amazing.

This was not a ship, it was a world in itself. No wonder it could go hurtling through space, and leave its occupants alive. Jahad was indeed a mastermind. Mentally David doffed his scientific cap to such a mentality. David sat for some moments contemplating the immensity of the idea. Probably, indeed without doubt, Jahad obtained his energy from the radioactive metal of which his ship was built. The thing was perfect—absolute perfection! But he must not sit there admiring the man, he must put his puny wits together and defeat him, for at this very moment the same mind that conceived this marvel of mechanism might be planning another disastrous raid on some city of the world.

In his talk with Tiania, David had discovered that Jahad had a base somewhere on this earth from which he operated. Her imperfect knowledge of geography did not permit her to tell him where. Even now he might be making another ghastly expedition. David knew he must work quickly.

He rang for coffee, and then set to work. For some time after his decision to work, he sat with pencil in hand, staring at the words he had written. Ultra-violet. When the coffee came, he drank it slowly, still staring. Ultra-violet.

Then—but no, it was impossible to spray the air with a solution, for he realized that dipped in a solution that would coat the metal, it would immediately become visible. He tried it, just to be sure, grasping the knife by the handle, about which he had previously knotted a thread to prevent him from touching the cutting blade. Dipped in a solution of ink, the knife was plainly visible, the ink forming a coating over the metal, and since the ink was visible, so was the knife. He did not waste much time in admiring the exquisite workmanship, but immediately cast it in a plaster preparation he made. While he was waiting for this experiment to work itself out, he went back to the paper on which he had written "Ultra-violet."

THEN the thing came to him! It was so simple, so beautifully simple. If, he reasoned—the knife is ultra-violet in color, and therefore invisible, would not its complement neutralize it? Infra-red rays focused on the knife might well counteract the ultra-violet, and leave the mass black. He was impatient to try out his theory, and immediately set about fixing the spectroscope so that it projected on the screen only the infra-red rays. He was forced to cut a new mask, and every delay made him impatient. At last it was ready, and he broke open the cast, and took out the knife. He washed it clean of any clinging particles of ink or plaster and hung it by the thread against the spectroscope screen. Then he stood off, his hand on the switch. He listened for the click as he threw the switch in. Then he looked at the screen.

There, about in the center, hung a black dagger.

His experiment was a success. He wanted to shout—he wanted to tell someone. He flung open the door of his laboratory. On a chair outside sat Tiania—and not far from her squatted Moana, dully nodding.

So she had waited up for him. She had faith in his ability. He caught her in his arms, pulled her from the chair, and kissed her. Then he stopped suddenly.

feeling very much ashamed, and not a little foolish. But she leaned against him, her soft body very tender, and yielding, and he kissed her again and again. And she returned his kisses. They were standing, then, just looking at one another—when Moana growled.

He turned. The old woman had risen, and was crouching for a spring. She leapt, and he managed to catch her hands that reached for his throat. The two struggled a moment, until the old woman, exhausted, fell to the floor. Tiania spoke to her in that tongue that could be biting in its address. The old woman started to cry, almost to grovel.

Tiania caught his hand, and led him into the laboratory. "You wanted to show me something."

He hadn't known it until she spoke that it was Tiania whom he had wanted to tell of his success. But now he knew, and was glad. He showed her the knife, the spectroscope, explained the experiment, and she understood it all.

"Now Jahad cannot take me away." She said it simply, almost childishly, yet he understood. And he understood something else. He realized that that had been his fear also. He feared that Jahad might take her away from him. That was one factor that had made him work so feverishly. How this woman who could walk into his mind could also walk into his heart!

Together, throughout the night, they worked on a light that would project this infra-red ray—the Red Ray—as he called it. Her infinitely greater knowledge of the unknown rays helped him vastly in the construction of a small model that could flood the screen. And all the while Moana sat in a corner and glared at him.

Exhausted with their work, yet happy, holding each other's hands—laughing delightedly at nothings, they went to breakfast. He would have to go to Washington with his model, with the knife, and his wild, incredible story, to get the authorities there to build large light-guns such as his model showed they would need. She would go with him, she insisted, and corroborate his story.

That day he spent in working to perfect the model. It was like a small trench mortar, made of cans. A powerful light, shining through an adjusted prism, gave a wide flood of red rays across the screen, so that no matter where he moved, the knife was always visible.

The next day he and Tiania and Moana, aboard one of his helicopter planes, flew to Washington. In the new building devoted to war aeronautics he got an audience with General Winchel, chief of staff, for a private interview. With Tiania at his side, he told the story to a man who was at first frankly amused and skeptical, but when he showed the knife—or rather allowed the General to touch the knife, and then exhibited his light-gun, Winchell became interested, then impressed. As Tiania told her story he was again amazed—again incredulous. But that knife was the only explanation he had had for the destruction of New York.

"Whether these ships are from Mars, or from some foreign power, I don't know, and don't particularly care, but if your light-gun, your Red Ray, as you call it, convinces my experts, I shall order all possible government plants at your disposal for their manufacture."

THEN followed a series of conferences with experts and department heads, all frankly skeptical, all doubting the Martian idea. But, on proof, they admitted the knife and the possibility of ships. One of the men suddenly sprang up, dashed from the room and returned in a moment with a piece of paper.

"Perhaps," he said, "your explanation sheds light on this," and he read the note.

"Sirs: I have been captured by men who claim to be from Mars. They fly invisible ships, in one of which I am a captive now. They command me to write this. They will destroy the City of New York utterly, in two weeks, then commence a destruction of Washington—and all other cities of this country, unless a girl named Tiania is returned to them, and unless you agree to turn over to them fabulous sums for supplies, which they claim they wish to take back to Mars. Unless the girl is returned in two weeks, unharmed, upon the tower from which she was taken, the other demands will not be accepted, and the whole country must expect to be wiped out.

"For God's sake save me.

"Arnold Rogers."

"I thought," said the man, "that this was a madman's note. It was addressed to Congress, and they turned it over to me for investigation. You have no idea how many crank notes we received after the disaster, nor how many demands for money to prevent its happening again. I just put this aside as the most unlikely, and the wildest."

"And it is most true," said David, quietly.

The men had turned to the girl. They seemed to ask if she would go back.

David faced them. "She will not go back. I will face the whole horde before I will permit such a...."

The men nodded. To them the course seemed impossible. And even considering the girl was returned, what assurance had they that the attacks might not be continued. They were men used to war and the idea of war. It did not frighten them.

Within the week David was supervising the construction of his Red Ray gun in half a dozen factories of Pennsylvania, New Jersey, and New York. The great electrical corporations turned over their plants without hesitation, and work progressed rapidly, thousands of guns being turned out in that second week.

But each night David flew back to his home, where Tiania awaited him—and together they spent the happy evenings, talking—planning of that time when the earth would be menaced no more, and they might take up their happiness. He sometimes feared that Tiania might long for her home in Onad, but she seemed to be content just to be with him. For that he was happy and proud. The one irksome point was Moana's mad hatred of the man who had taken her mistress' heart. She seemed to feel some fierce loyalty to the man who had enslaved her, and put her to guard this girl.

As the time appointed by Jahad for his second attack drew near, David superintended the placing of the Red Ray on buildings, at all strategic points in the city. Not only New York, but several other cities were being equipped with Red Rays for there was no assurance that there would not be some concerted attack.

On the day appointed, all traffic was suspended throughout the city, and warnings were sent to all people to stay at home. David, fearing to use a plane, for fear of plunging headlong into one of the invisible ships had one of his cars ready to dash into the city at a moment's notice.

He was with Tiania, seated in the parlor of his home, when the news came. The radio photophone was turned on, and the warning came.

"The Martians are above the city!"

In an instant he was down the gravel path, and in the car. Tiania was beside him. He tried to persuade her to leave, because she might be injured, but she refused to leave him. Together they flew down the

road, racing against time. Wind fingers tore at their hair, so that Tiania's seemed to float out behind like some golden flame. At last they were in the city, swinging perilously around corners, dashing madly through the tunnels of the river, tearing up Broadway. At last they reached the Electro-Photo Building, left somehow unharmed after the first attack, probably because Jahad had feared Tiania might be in it and did not wish to injure her.

He could see one of the ships limned by his Red Ray. It seemed to reel drunkenly in the sky, until a shot from an anti-aircraft gun struck it and sent it hurtling to the earth in broken pieces.

The attack was on!

As he hurried into the building, a bomb exploded down the street, and the shrieks of some foolhardy persons who had ventured out rang through the street. Tiania turned from him and ran to their aid. He called out to her warning her of the danger, but she sped on. He had to be on the roof. So he hurried in and was shot upward in one of the elevators operated by a United States soldier. It gave David a thrill to know that mobilization had been so quick.

On the roof were two other men, young electrical engineers in khaki. They were working the gun on the swivel, swinging its rays across the heavens. The rays struck one of the Martian ships, making it a black cylinder in the sky. Suddenly, that one, like the first, began to reel and stagger in the sky, until a puff of smoke and a thinly heard roar, a belch of metal and men, told of its destruction.

NOW other lights were swinging across the sky, and the forms of half a dozen of the air monsters seemed to leap into existence, only to stagger about in the air like blind things. Two collided and crashed to the earth together. As more and more lights began their play across the heavens, more ships seemed to spring into being, until it seemed that there were fifty of the black giants floating drunkenly in the air, at the mercy of the guns on the earth.

A definite formation was visible when all the ships were located, but it seemed to break and waver as the Red Ray struck them. They seemed like bats blinded by the lights of a watch tower, circling giddily, crashing into one another, and crumpling with a sickening crunch as the anti-aircraft guns bit into their vitals.

One ship, close by, which was suddenly made visible, reeled madly, swerving wildly into a nearby building. The whole seemed to crumple, and bulge, splitting along its sides, spewing men, half naked into the streets. Even from where he was he could hear their cries, see the twisting, grasping limbs as they hurtled earthward —see their half comical goggles.

Then he understood—those goggles. They were so highly sensitized, in order that they might see others of the fleet. When the Red Ray struck them, the Red Ray, hottest of all rays, it simply blinded these men from another world. That was why, when the Red Ray struck a ship, it reeled so madly in the air.

The fight went on, but the odds which had been all with the Martians, were now with the Earthmen, for the Martian ships could not even turn in flight without colliding with their own craft. The destruction went on. A puff of smoke, a whine of the shell, and another ship sagged for a moment in the air, burst open, gutted of its human contents, and fell to the earth, a mangled mass.

There were but few machines left reeling about the sky when Tiania returned to him.

She was facing David, looking out beyond him to the street. He saw her eyes widen in horror, heard her cry out in her own tongue, and hurl herself at him, swinging him around, so that he was able to see over her shoulder. In the window of a building across the street was Moana, the peculiar flute-like instrument, she had first used to strike down one of her fellow men that day on the roof, pointed at him. Tiania's body covered him now. He looked down at the girl. She seemed to know that that instrument spelled death, and she was protecting him. Even as he looked down he heard an explosion from across the way, and felt Tiania sag against him as the very building trembled.

He looked up, to curse the hag across the space of street. She was no longer there. The entire building was gone! He realized in that instant, when he had looked down, that one of the Martians had bombed the building, and that the concussion had shaken his own. It had killed Moana, but it had spared Tiania.

Again the building trembled, and David looked up. The light-gun had been overturned, and the men were struggling desperately to get it into position. From where it lay on the roof, its rays struck the side of a Martian ship—the largest of them all—which had just collided with the tower.

A man leapt from the side, and ran toward the group. It was Jahad. David saw the great jewel blazing malignantly over his heart. Jahad sent up a great shout and charged for David. Pushing the girl almost roughly aside, David met his onslaught. The man was taller than Dave—and powerful muscles bulged on his arms as they reached out to shut David in their mighty grasp. He sidestepped, and struck at the man with a blow that staggered him. Again the two met, and David felt the great arms seeking to crush him. A short arm jab sent the man back gasping, and David finished with a crushing blow to his jaw.

Faintly Dave could hear the voice of Tiania cheering him on. The blood-lust was upon him. This man had dared to presume to Tiania. The man was up. David rushed in, regardless of the flailing arms, and the two went down on the roof together. David felt his breath going out as the great, sinewy arms of the blonde giant shut down on him. Again he struck out, catching the man just below the short ribs. The mighty arms slowly relaxed, and David stood up.

The two engineers rushed up, and grasped Jahad by the arms, twining a rope they had found about the man, trussing him up, binding him. They looked for another onset from others—but none of the others gained the roof, for the great ship, crippled, swung from the tower, and settling more and more rapidly, crashed to the street below.

The rest of the fight between the Martians and the Earthmen was soon over—the ships were at the mercy of any gun that chose to send a shell crashing through them. At last the sky was clear of monsters, so far as the searching Red Ray could discover.

David, calling over the radio photophone, reported the battle to Washington. From them he received orders to leave men at each light gun, until it was sure that no more raiders were in the offing. The captured raider, Jahad, became a prisoner of war, and was taken by the authorities to the War Department for questioning. For Jahad had learned English from Arnold Rogers, as Tiania had learned it from David.

A few days after the great battle, Mr. and Mrs. David Saunders spent their honeymoon in Southern France.

"Dearest," he said, "you came from one world to show me another—the world of Love." And together they looked off toward a distant red planet.

THE END

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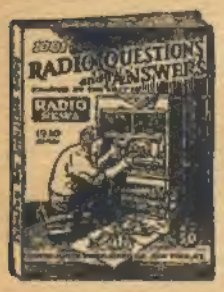

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READERS' EDITORIALS

(See page 277)

Scientifiction and Enlightenment

A TRULY revolutionary condition produced by scientific literature has been the fall of the "sex" and "confession" type of story in the estimation of many intelligent readers. One reason for this is the unvarying monotony with which these stories are endowed, pitted against the ever new and interesting situations created by science fiction writers. In other words, scientifiction is making people think.

The delightful method which scientifiction employs in presenting to the layman the great truths of science is having a telling effect upon the thoughts and conversation of our people. Both professional and non-professional persons, unconscious, perhaps, of the fact that the fiction which they read contains the same material, which is embodied in college text books are frequently gaining the habit of reading such sort of literature, which trains them to think logically and with less prejudice, not only concerning scientific matters, but also concerning everyday life and habits.

Through their reading material, especially, it is easily noticeable that scientifiction is producing a profound effect among young people, where the characteristic open-mindedness of youth prevails. These young people are acquiring a healthy interest in things scientific—an interest that will be of far-reaching value in the development of mankind.

Since the interests of science are expressed in this sort of literature, it is only inevitable that its readers should want to study the "why" of things and delve deeper and deeper into the mysteries of nature; the fundamental of all these efforts will eventually unfold itself to them, it will be expressed in one word—truth.

True, scientifiction, is rarely in itself, fact, but its speculation is built upon hard, cold facts, which have been used to logical purpose in creating the situations described in the various stories. It instructs the reader to reason logically, think straight, and develop open-mindedness.

The future effect of scientific fiction should be still more profound. Just as science worships the truth so will readers of this type of fiction eventually desire truth in all things; honest and straightforward government, beneficial education, wholesome recreation and religion without prejudice will be desired by the race as a whole if scientifiction can penetrate to the mass of ignorant, cultured and uncultured, people, who today hinder the progress of the world.

Surely scientifiction can accomplish this tremendous task if properly applied; undoubtedly this sort of story opens to us new worlds, new people and new things, and yet it is not founded upon speculation, but upon truth, this should be sufficient to show anyone that there is a hereafter, that science and religion do not and can not conflict, when they worship the truth as one, and that we should not discredit that which we can not see.

Although scientifiction alone can not be a factor in attaining the coveted Utopia, yet it undeniably brings about that honesty and worship of truth which is needed to advance mankind to loftier heights; no other type of literature has been able to do this.

Wm. B. Thompson,
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Your Viewpoint

The Gulf Stream and Climate

Editor, AMAZING STORIES QUARTERLY:

I have just finished the October issue and Spring QUARTERLY of AMAZING STORIES. In the QUARTERLY I noticed that the author said that the war was over the climate, that one country wanted the natural climate or weather, because the Gulf Stream had been stopped by the artificial climate, which kept the world at a normal temperature, and the country complained of lack of warmth which had stopped, and were cold. If the artificial climate kept the whole world warm, why should it be cold there?

The story was very good, as were the rest.

The magazine is very good, but I would like more stories by Edgar R. Burroughs.

In the October issue I read that G. Adkins would like to get a copy of the magazine that had "The Master Mind of Mars" in. It has part of two small stories missing, but if he wants it, he can send me the amount that he thinks it is worth and I will send it to him.

Dell Thiel,
378 E. Spokane,
Tacoma, Wash.

(The great problem which confronts the editor is to give not only good stories, but to have the best authors adequately represented. But what can be done when only half a dozen stories appear in an issue? So we are restricted in our efforts at editing, because we have no room. We receive a surprising quantity of excellent stories, many by the best authors, but they are judged on their literary and scientific merit, not by the authors' names. We wish to give our readers the best, and the range of our stories is somewhat restricted in subject and treatment.—EDITOR.)

A Story Which Captured a Reader on His Second Perusal

Editor, AMAZING STORIES QUARTERLY:

I owe you an apology. Please let me pay my debt. Four or five months ago I wrote you a letter in which, among other things, I criticised a certain story in the QUARTERLY. Since then I have had cause to change my opinion of that tale.

Having digested the daily paper and wanting to modify effects—to clean the mind—of the latest scandals, accidents and sudden deaths, I started to search among the back numbers of AMAZING STORIES. I finally picked on the Summer Edition of the QUARTERLY. The story I elected to read was the very one I had found so much fault with, "The Sunken World." Before I was half through I had learned a lesson. I do not think either the editor or author knew that yarn contained such a text. Yet it struck me with the force of a slap in the face.

Do not condemn a story, article or other production on the first perusal; such was the message conveyed to my brain. Wait until you have read it the second time. I am speaking, of course, of those who are not trained to tell the merits or demerits of literature at first perusal.

Why I have changed my views about "The Sunken World" is not clear to me yet. As it was impossible for the printed page to change, the cause must be in me. Has my attitude changed? Was there some kind of a kink in my brain that caused me to take offense the first time I read it? Have I acquired the ability to see deeper? I don't know. What I do know is, that I read it with an enjoyment that was lacking the first time.

Then came the April number of AMAZING STORIES. I finished reading "Into the Green Prism." Oh, Boy! what a tale. To tell of the thrills I received and, therefore the enjoyment that was mine, would exhaust the superlatives of a gifted grammarian. I am not one, so will say no more.

I haven't read the rest of the magazine, yet. That yarn based on the ancient theme, "Buried Treasure," looks good.

Court Street,
Skowhegan, Maine.

[We cannot say anything about the psychology of your feeling of "The Sunken World." It so happens that we are very proud of our authors and have to qualify that pride with our desire to use new ones, for good material keeps pouring in to us, so that four or five stories by our "own" authors may crowd out several by new authors. As regards Mr. Verrill's stories, he is a recognized authority on South American ethnology; at least that is one of his specialties, although his studies in this very comprehensive science and in archaeology cover the whole world. We thank you for your comment.—Editor.]

Two Stories Commented on. Radioactive Action

Editor, AMAZING STORIES QUARTERLY:

I have just secured my copy of the Fall Quarterly, in fact about two hours ago, and have just finished Mr. Verrill's "The Bridge of Light." To my mind, it is one of the best I have read in a long time. It compares about equally with Stanton A. Coblentz's story about the "Lost Atlantis" which you published some time ago. I think the name of that story was "The Sunken World," but I am not sure. However, I intend to recommend "The Bridge of Light" to my friends unreservedly. It contains little technical science, but the thought advanced by Mr. Verrill as to the etching of Mayan stone works by a radioactive material seems quite plausible to me. Also, if such a story were fact, I think that the extreme age of some of the Mictolanians might be explained by the same abundance of radioactive compounds.

Donald S. Storms,
1015 E. Adams Street,
Syracuse, New York.

(We are glad you agree with us that "The Bridge of Light" is a fascinating story. It certainly contains a wealth of atmosphere and archaeology. Mr. Verrill knows whereof he speaks. As for Mr. Coblentz and "The Sunken World," we are also of a mind with you. The subject of the "lost Atlantis" is a favorite one for writers of fiction, but we thought that this story by Mr. Coblentz was one of the best on that theme which it has been our fortune to read.—EDITOR.)

A Letter of Intelligent Criticism

Editor, AMAZING STORIES QUARTERLY:

I want to compliment you on your selection of stories in the Winter edition of AMAZING STORIES QUARTERLY. "Tani of Ekkis" was the most interesting story. I liked it better than the author's two other stories. "White Lily" by John Taine was good, but it was not amazing enough. It was a good story of a war in China. "The Astounding Enemy" was a very good ant story. I hope you will publish more insect stories in the future. "Dirigibles of Death," by A. Hyatt Verrill was very good, as are all of his stories.

The illustrations by Wesso and Morey were very good. Especially the cover picture.

The "Reader's Viewpoint" was too short. Instead of the extra editorials, put in more letters.

Are you going to increase the number of pages in the Quarterly as you did in the monthly? If you are, you had better use a thinner grade of paper. The cover paper should be stiffer as the kind you are using now tears easily.

What A. M. Tuttle says about Edmond Hamilton's stories may be true, but I hope that he (Mr. Hamilton) will not stop writing for you. Possibly he will see that his science is more exact in his next stories.

Jack Darrow,
4224 N. Spaulding Avenue,
Chicago, Illinois.

(Your letter is particularly welcome, in view of the criticisms contained in another letter published in these columns. John Taine's story, "The White Lily" seemed to us to contain, aside from its science, a high degree of literary value, a combination of which is such a rarity. The ant story, with its striking finale, treated the subject from such an original viewpoint that we were certain it would be widely appreciated. If you will stop to compare the Monthly with the Quarterly, you will find that the difference in size is not confined to the number of pages. The type in the Quarterly is also smaller—that is more compact—than the type in the Monthly, which means that there is considerably more reading matter in the Quarterly, even in an equal number of pages. As for Hamilton—the first part of his new story, "The Universe Wreckers" (a serial in three parts) will begin in the May issue of AMAZING STORIES Monthly.—EDITOR.)

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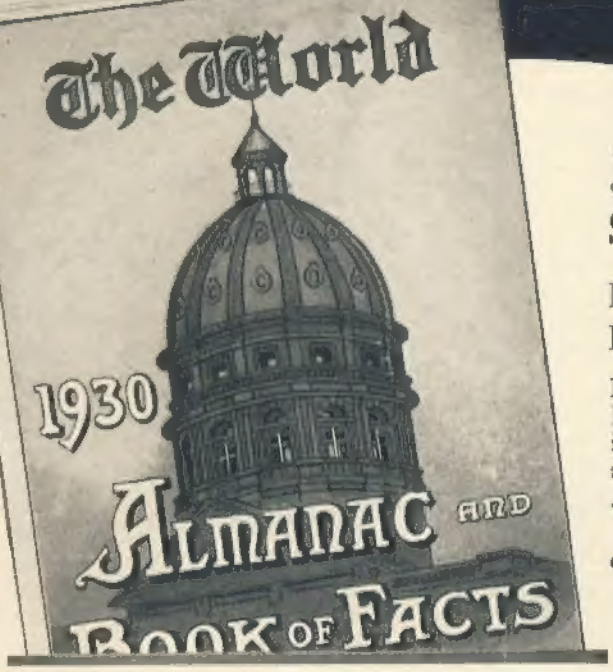

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